

Adjusting Priorities

A Strategic Assessment of  
USAID/Malawi's  
Natural Resources Program

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## A STRATEGIC ASSESSMENT OF USAID/MALAWI'S NATURAL RESOURCES PROGRAM

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# Executive Summary

This report summarizes the findings of the Strategic Assessment of USAID/Malawi's Natural Resources Program. This program, known as Strategic Objective (SO) 2, is aimed at increasing the sustainable use, conservation and management of Malawi's renewable natural resources. The major funding vehicle for SO2 is the five-year, \$40 million Natural Resource Management and Environmental Support Program (NATURE). The purpose of this assessment was to reexamine USAID's SO2 activities, with an eye toward determining how well this package is positioned to achieve its intended results, particularly given underlying demographic, economic, market, environmental and political trends in the country. The findings and recommendations of this assessment will provide guidance for USAID and the Government of Malawi (GOM) for re-orienting program and project activities.

Malawi is in a period of unprecedented change. Most of what happens to the environment, for good or for bad, will depend on how intertwined trends, such as demographic changes and political and economic liberalization, play out. Thus, one should be careful not to move simply from one static scenario to another. Instead, SO2 should strive to be a dynamic system, one that can capture new opportunities as they are created by change in Malawi. Consequently, to be useful, this SO must be built around Malawi as a moving target—one that keeps changing and evolving, sometimes in positive ways and other times negative.

Since many of the larger trends lie outside the manageable interest of USAID/Malawi (and certainly of SO2), we need to ask what SO2 should do given that these trends exist. Trying to simply “improve the present” can be a costly proposition when the underlying trends militate against the changes being promoted. Based on this idea, the report recommends that three goals guide the strategic redirection of SO2 programs. These are:

- Using public resources to leverage larger trends. In making program choices, one of the most difficult challenges the public sector faces is knowing when to resist the urge to fix the most urgent need in favor of addressing what is more important over the long term. When the goal is lasting impact, concentrating on the immediate situation—that is, “fixing what’s wrong” (e.g., building capacity because it is weak; increasing production because it is low; protecting resources because they are threatened)—may not be the best use of limited resources.
- Defining sustainability as a “system goal” rather than an “activity goal.” Often, intervention without regard to the larger trends and incentives has left little lasting impact on human and ecosystem welfare, and even less on recurrent, system-wide tendencies to generate future poverty and resource degradation. Better NRM management will only be widely adopted if it results from the “normal operation” of the economic, political and social system. Conversely, unless improved practices are widespread and routine, the environment will not be sustainable. For instance, instead of focusing on the sustainability of a given institution or farmer practice, emphasis should be placed on the ecosystem or political economy on which they all depend.

- Expanding the definition of “capacity building” to include “opportunity building.” Part of the capacity problem is the shortage of knowledge, technologies and skills. However, an equally important part is the lack of opportunity to apply capacity which does exist, or to develop and use new capacity.

Because NRM programs do not exist in isolation from the rest of the economy, these goals must be joined by three essential guiding principles for program design: market orientation; consistency with new directions in governance; and responsiveness to local demand.

In conjunction with these goals and principles, the report recommends nine strategic-level shifts to help redirect USAID’s environmental and natural resources program onto this new path:

- Substantially increase emphasis on the “policy transmission belt,” through which national policy reforms are implemented in ways which influence the incentives and behavior of local resource managers. Over the last five years, Malawi has made dramatic progress in reforming national policies relating to natural resources management. However, much remains to be done to capitalize on these changes and translate them into widespread, field-level improvements in how resources are managed. There needs to be a better understanding of the set of complementary measures required to bring about this systematic change, with a focus on market incentives for sustainable resource management.
- Substantially strengthen the hitherto under-emphasized “demand side” for local-level NRM initiatives and for use of environmental information. Consequently, SO2 should establish analytical and programmatic procedures to make its resource allocations “opportunity-driven” rather than supply-driven, emphasizing program designs which identify demand and can provide a flexible “menu” of solutions to meet it, rather than programs which fund solutions in search of problem.
- Shift the balance of capacity building efforts “down and out:” down from the central to the district and local public sector; out from the public sector to the private economy. The weakness of national public institutions, particularly relative to the volume of donor assistance, has generated a strong emphasis on capacity building at the national level. Yet paralleling this need is the equally urgent need to ensure that local and private sector capacity is sufficient to help make central government’s new role as “facilitator” a reality (i.e. there must be local and private initiative to facilitate). Thus, there should be increased funding for district and local level public capacity; enhancement of local and private institutional intermediaries in the “policy transmission belt”; and greater emphasis on market access and on establishment of secondary enabling conditions which can generate incentives for improved natural resources management.
- Increase relative program emphasis on NRM practices by smallholders on individually-managed lands, while retaining attention to communal management of common property resources. The quality of on-farm resource management directly determines whether the resources are degraded, maintained or enhanced over time. Thus, the greatest NRM successes—and those which have been the most widely replicated—successfully tap the vast reservoir of initiative which the search for private self-interest unleashes. This implies that a

greater emphasis be placed on developing market access and marketing networks for smallholders.

- Establish and focus resources on three to five local “target zones” to test market-based approaches to smallholder natural resources management on individually-managed lands. The learning from these zones can then be used to refine approaches, and eventually to spur further policy changes or other improvements in the “policy transmission belt.”
- Dramatically reduce the scope and coverage of the NPA to focus on true priority changes. Strongly consider using the NPA to leverage local policy and institutional changes in “target zones.”
- Build long-term, structural linkages with East and Southern African “sister institutions” to help transfer lessons from similar NRM experiences elsewhere in the region. The rationale for regional institutional partnerships is strengthened by its consistency with the long-term trends towards regional economic and market integration, particularly in the SADC countries.
- Build targeted operational linkages with other USAID Strategic Objectives (especially SO1) and with other Government of Malawi and donor-supported programs relating to rural production. There is a natural tendency for programs to segregate themselves into sectoral components. Yet the SO2 program would benefit from increased operational (not only conceptual) linkages with efforts in related sectors, such as agriculture and population.
- Determine whether to adopt a national approach or geographic focus based on three principal criteria: (a) long-term “Nexus”-type opportunities; (b) program implementation strategy, including the strategy for broader replication of successful results; and (c) assessment of how best to achieve a critical threshold of impact in test areas. In particular, it recommends that efforts be focused in areas where there is both significant potential for success (i.e., enabling environment) and significant need or demand. USAID should work with its partners to identify where these two coincide and what criteria (and their relative importance) to use in ranking options.

Finally, the report presents a modified results framework, which includes some of the most significant changes that should be considered. It is offered as “food for thought,” as a participatory process for revising the RF is critical. It also analyzes SO2 program activities in 7 areas: policy reform, environmental monitoring, agroforestry, community-based natural resources management, endowment fund, performance based budgeting, and institutional development. For each, the report reviews progress to date and recommends modifications along the lines suggested above.

# 1. INTRODUCTION

## 1.1 Scope and Purpose of Assessment

Strategic Objective (SO) 2, to increase the sustainable use, conservation and management of Malawi's renewable natural resources, is the newest of USAID/Malawi's strategic objectives. During the process of Agency reengineering and the adoption of SO2, two cooperative agreements were modified and moved from USAID/Malawi's agricultural portfolio. At the same time, "new" activities, such as policy and legislative reform, strengthening of environmental institutions and community based natural resource management, have been added. Thus, the elements of SO2 are a blend of "old" and "new" activities. The main funding vehicle for SO2 has been the Natural Resources Management and Environmental Support (NATURE) Program.

At this mid-term point in program implementation, USAID wanted to revisit the original concept and rationale for SO2. It asked International Resources Group (IRG) to assess whether the current strategy and indicators were appropriate vis-a-vis the overall objective, and if the existing blend of activities was the best means to achieve results. There was a general concern that the strategy might be too broad in its scope and unrealistic in terms of what could be accomplished. Additionally, there have been significant policy and institutional changes since program initiation. This assessment analyzes the implications of these changes and articulates the lessons learned during implementation so that these new opportunities and experiences can be better integrated into the program. (The Terms of Reference for this study can be found in the Annex.)

This strategic assessment is not an evaluation. It does not rate the performance of on-going activities. Rather, it provides a starting point for adjustment of USAID's future activities on an environment. Specifically, it develops substantive and detailed recommendations regarding the scope and strategic approach of SO2. Analysis is based on experience to date during program implementation, an understanding of the underlying demographic, economic, market and environmental trends in Malawi, and on the appropriateness of the current USAID SO2 strategy and activities vis-a-vis desired results and the implementing environment. The findings and recommendations of this assessment will provide USAID and the Government of Malawi (GOM) with guidance for re-orienting program and project activities.

This assessment is funded as an activity under component one (improved analytic and information systems) and component two (nexus/frame - analysis of the impact of dynamic change on strategic management) of the USAID Africa Bureau, Sustainable Development Office task order with the Environmental Policy and Institutional Strengthening Indefinite Quantity Contract (EPIQ). This report was prepared by a team fielded under the EPIQ task order which included Tony Pryor, Environmental Policy Advisor, and Paul Bartel, Environmental Information and Monitoring Advisor, with AFR/SD/PSGE. The work of the team was coordinated in the field by USAID/Malawi's Strategic Objective team for SO2, with the assistance of David Himelfarb, Wayne MacDonald and Steve Machira.

## 1.2 Program Overview

Recognizing the importance of addressing environmental problems, in 1994, Malawi adopted a National Environmental Action Plan (NEAP) which documented the depletion of Malawi's natural resources and outlined environmental mitigation strategies. To operationalize the NEAP, Malawi prepared an Environmental Support Program which currently provides a framework for donor-funded natural resource management (NRM) activities in Malawi. While these important efforts are building a foundation for sustainable development in Malawi, their positive impact is reduced because of the weakness in the institutional framework and mechanisms needed to address the highly cross-sectoral nature of environmental problems, lack of environmental awareness, a weak legal and enforcement capacity, and major budgetary limitations.

USAID environmental support to Malawi falls under what has come to be called Strategic Objective 2: Increased sustainable use, conservation and management of renewable natural resources. The major funding vehicle for this objective is the five-year, \$40 million Natural Resource Management and Environmental Support Program (NATURE) which began in January 1996.

NATURE is divided into two components: non-project assistance (NPA) of \$30.5 million and project assistance (PA) of \$9.5 million. The NPA has been geared toward the development and implementation of a policy and legislative reform agenda and budgetary support, while the PA has provided technical and management assistance for the NPA activities and for financing complementary efforts primarily in such areas as agroforestry/soil conservation and environmental monitoring.

### 1.2.1 NPA Component

Budgetary support/NPA is geared toward the development and implementation of a policy and legislative reform agenda; strengthened capacity of institutions through improved coordination; implementation of a results driven natural resource management program, including the establishment of a performance based budgeting system for priority natural resource management activities; achievement of sustainable financing through the creation of an endowment fund; and general budgetary support for national environmental objectives. Funds are disbursed in tranches upon the Government's satisfactory achievement of agreed upon milestones (conditions precedent or CPs). The first tranche disbursement of \$5 million was made in February 1997. The second tranche is due to be released in late 1998.

### 1.2.2 PA Component

Project or activity assistance provides technical and management assistance for the NPA activities noted above and for financing complementary efforts primarily in such areas as agroforestry/soil conservation, environmental monitoring, public land utilization, and community based natural resource management. The University of Arizona and Washington State University have cooperative agreements which originally began as environmental monitoring and agroforestry activities under USAID/Malawi's agricultural portfolio ("Increased Agricultural Incomes on a Per Capita Basis"). During the process of Agency reengineering and the adoption of SO2, these projects

were moved from USAID/Malawi's agricultural portfolio (SO1) to SO2 and modified to better reflect the needs of the new environmental strategic objective.

### Agroforestry

Washington State University (WSU) has a cooperative agreement, called Malawi Agroforestry Extension Project (MAFE), the objective of which is "to increase farmer adoption of proven agroforestry and soil conservation practices." This is to be accomplished through strengthening the delivery of extension services and farmer-level agroforestry research. The WSU strategy for achieving its objective involves the establishment of performance-based partnerships with government, NGOs, community groups and the private sector which are geared, as appropriate, toward: a) improved research and extension services; b) increased quantity and quality of agroforestry germplasm and planting materials; and c) strengthened "partnership networks" which embrace such activities as information sharing, coordination, training, technical services and monitoring and evaluation. The grant period is from August 1992 to September 2000.

### Environmental Monitoring

The University of Arizona (UOA) has a cooperative agreement with the following objectives: a) build capacity in environmental technologies to answer questions about environmental conditions in specific situations that can be used to guide GOM mitigation actions; b) build broader technical and scientific capacity through training and research to support and guide future policy decisions; c) develop a prototype environmental information system (EIS) and a prototype data base which will link to a future national EIS; d) support the establishment of a comprehensive policy, legislative and institutional framework governing natural resource management; and e) support introduction of results-driven management practices and procedures in the environment/natural resource management sectors.

The Malawi Environmental Monitoring Program (MEMP), one part of this agreement, undertaken in conjunction with Clark University, is designed to build a national capacity for providing environmental information. The purpose of the information is to: 1) answer questions about environmental conditions in specific situations that can be used to guide mitigation measures; and 2) broaden the technical capability upon which a viable Environmental Information System can be based for guiding policy decisions. Duration of the activity is from March 1993 to September 1998.

### Policy Advisory Assistance

NATURE provides a policy advisor to the Environmental Affairs Department to support policy, legislative and institutional reforms. The advisor works with the various ministries and departments involved in NATURE to assist them with the attainment of objectives that are part of the NPA component to the program.

### Assessment of Public Lands

Population pressure combined with Malawi's new democratic structures are focussing intense attention on sensitive land tenure issues. Under guidance from the Ministry of Lands and Valuation

three major land utilization studies are underway which cover: customary land use (supported by the European Union), estate land use (supported by the UK-ODA) and public land use (assisted by USAID). In addition, the President established the Presidential Commission of Enquiry on Land Policy Reform to make recommendations for promoting equitable access to land, security of title to land and improved land administration.

The public land utilization study (PLUS), funded by USAID, is designed to provide a comprehensive characterization of environmental status and optional use scenarios for publicly-held lands in Malawi. As a result of this activity, policy-makers will be better informed about the likely consequences of changes in tenure or use status of public lands. The study examines all public lands extensively and five specific protected areas intensively. The latter include the Zomba Forest Reserve, Mulanje Forest Reserve, Liwonde National Park, Dzalanyama Forest Reserve/Agricultural Scheme, and the Vwaza Wildlife Reserve. Technical Support is provided by the University of Arizona. Work began in March 1996 and was recently completed.

### Community Based Natural Resource Management (CBNRM)

Two contracting mechanisms will support community based natural resource management (CBNRM). In the short-term, SO2 “bought into” USAID/Malawi’s ongoing Services in Health, Agriculture and Rural Development (SHARED) activity, which is managed under Strategic Objective 5 (Democracy and Governance). This involved transferring \$200,000 to SHARED to assist local NGOs to implement community based natural resource management activities. In the longer term, the major vehicle for supporting CBNRM will be through a five year institutional contract, which is currently being advertised.

Several Malawian organizations are either engaged in or are planning activities to strengthen the capacity of communities to manage their natural resources. These programs are generating various CBNRM models that can reflect local conditions and test various approaches. The programs, however, are commonly carried out in isolation so that lessons learned are not shared, technical support and training programs are not coordinated, policy issues are poorly vetted, and generally, the systemic constraints to the adoption of CBNRM are unaddressed. Therefore, CBNRM stakeholders and USAID are developing an initiative designed to “strengthen the institutional framework in which CBNRM programs are designed, implemented, monitored and evaluated.” Proposed duration of the activity is from July 1998 to December 2002.

### Other Mission Activities

There are a number of other activities sponsored by USAID/Malawi that support, either directly or indirectly, the achievement of SO2. The Results Framework, detailed in chapter 3, and the Mission Strategic Plan identify these. For instance, the Smallholder Agribusiness Development Project (SADPSAPD) under SO1 works with MAFE, Government of Malawi Land Husbandry Agents, and producers of tobacco and other cash crops to encourage the inclusion of soil conservation and agroforestry practices as part of cropping systems.

## 1.3 Organization of Report

This report has 3 parts. The main report includes this introductory chapter, which outlines the scope and purpose of this strategic assessment and provides an overview of the NATURE program. Chapter 2 describes the on-going structural changes in Malawi and identifies the implications of these changes for planning. Chapter 3 reviews the current SO2 results framework (RF). It identifies missing pieces and suggests modifications to the RF. Chapter 4 provides a more detailed assessment of SO2 program activities in 7 areas: policy reform, environmental monitoring, agroforestry, community-based natural resources management, endowment fund, performance based budgeting, and institutional development. Chapter 5 provides recommendations for changes in program focus. Specifically, it identifies the major issues and suggests actions in order to capture future opportunities.

Appendix 1 contains detailed technical reports on: progress in policy reform; community-based natural resource management; institutional development; urbanization and the environment and the population/agriculture/environment nexus. Appendix 2 contains the Annexes to the report. It includes biographical information on the SO2 Assessment Team, the terms of reference for this study, and lists of persons contacted and documents consulted.

## 2. On-Going Structural Changes in Malawi

### 2.1 Development Context and Major Trends

Malawi is endowed with a diversified natural resource base which, if properly utilized, could provide the basis for sustainable socio-economic development of the country. Its forest resources cover about 40 percent of the land area and its abundant water resources support uniquely rich and diverse fish resources. Yet a nexus between population growth, poverty and agriculture have led to unsustainable resource utilization.

Malawi, with a population of about 11 million, is among the poorest countries in the world, with a per capita GDP of MK 991 (US\$225) in 1993. Almost 60% of rural households live below the poverty line of US\$40 annual per capita income. This poverty is also reflected in the low average social indicators, such as high illiteracy (50%) and infant mortality rates, and limited access to basic social services. The problem is compounded by a population growth rate of 3.2% per annum, one of the highest in the world. The high rate of population growth has created a growing imbalance—between population and the natural resource base—which has altered the overall context of the Malawi economy in general, and the environment in particular.

Population pressure places enormous demands on the country's natural resources. Population densities are among the highest in the region, with some estimates at 170 inhabitants per square km of arable land. The population is predominantly rural, constituting about 85 percent of the total. Of this, 98 percent derive their livelihood primarily from smallholder agriculture, with 55 percent having less than 1 hectare of cultivable land, an amount inadequate to meet their food needs.

With most Malawians depending on the land for their food, energy and income, the natural resource base has degraded in recent years. While Malawi has some of the most fertile soils for agricultural use in southern Africa, soil erosion, estimated to average 20 tons per hectare annually, is having a disastrous effect on soil fertility. Similarly, total forest cover is declining, by an estimated 41% between 1972 and 1990, and offtake from the fisheries sector, which provided 70% of the animal protein in the nation's diet, has markedly deteriorated. Most families lack the resources to adopt more appropriate resource use practices—even though this would provide increased incomes over time. Being the most affected, the poor heavily discount future income and pursue sub-optimal social consumption decisions, leading to environmental degradation. Traditional land use practices that once preserved the integrity of the natural resource base are changing into exploitation.

### 2.2 The “Constant” of Change

A process of structural change was set in motion forty years ago, and will not play itself out for another generation. Initially unleashed by reductions in mortality, it continues to be driven by a current age structure in which the next doubling of population within a generation is already built in. At the same time, there are enormous on-going changes in terms of social aspirations, mobility, breakdown of traditional authority systems, roles of the young, roles of women, economic and

technology options, new ideas, and, within the last few years, entirely new forms of political organization and social discipline and the growing socioeconomic impact of AIDS. Add to this mix the market implications of rapid urbanization and the as yet unpredictable potential for greater economic integration in a newly-vitalized SADC region, and one quickly realizes that change is the only constant in Malawi's near-term future.

Given this backdrop of change, strategies which look for short-term equilibrium will not find it and will do little, if anything, to change the long-term prospects for either the economy or the environment. It is already well-understood that everyone is operating in an environment of poverty, resource degradation and stretched institutional capacity. The public sector is heavily dependent on, and often driven by, donor funding priorities, which are themselves sometimes inconsistent and capricious. As in other parts of Africa, Malawi is at an historic moment during which such seemingly abstract and philosophical concepts as "the appropriate role of the state" now influence such basic and practical decisions as how to allocate budgets, whose capacity to build, and for what.

Putting this all in programmatic terms, USAID and its partners face two key challenges, both of which make planning a less "comfortable" exercise. First, USAID is not simply trying to "change" a world which is known and static. Instead, it must influence the evolution of a world which is changing rapidly, often in ways which are difficult to anticipate or even perceive. Second, achieving results depends on both the GOM and USAID acting in territory which, to differing extents, is largely unfamiliar. Success depends on influencing the behavior of millions of actors, not on the sum of projected interventions by the public sector.

## 2.3 Understanding the Problem

The appropriate timeframe for SO2 is 20 years. In 20 years, Malawi will have a population of 24 million, as the Vision 20/20 and other analyses show. Already, more nutrients are being removed from the soil annually than are being put back in. System-wide, agroforestry, preventing soil erosion and the like will buy valuable time, but will not fix the structural problem. Putting nutrients back in, that is, investing in the land, will ultimately require purchased inputs, and, in turn, a basic shift in the rationale of the rural economy, from subsistence production to commercial exchange.

Ultimately, Malawi's 12 million urbanites in the year 2020 must become viable customers for the 12 million rural producers in order for the economic and production system to be on a sustainable path which no longer needs to degrade resources in order to survive. By the time USAID can hope to have any visible progress towards the Strategic Objective, issues like hydroelectric production in the Shire Valley, fuel substitution for urban households, and cross-border market linkages in the SADC region will be important factors in the on-going producer and consumer choices USAID is trying to influence.

## Figure 2.1: Farmer Marketing Networks

## 2.4 Finding Points of Reference for Impact

The point of this chapter is neither to prescribe solutions nor to suggest that it is all hopelessly complex. It is not. Instead, it is to suggest that in a very complex and rapidly changing context, one needs to be very careful about what linkages one assumes, and very clear about what “points of reference” one builds a strategy around. In the end, the validity of the Results Framework rests squarely on the ability to demonstrate that the activities funded by USAID will have an impact on the day-to-day choices made by farmers, fishermen and other resource managers. If USAID’s program does not meet this test, it becomes impossible to defend. Thus, this report highlights a key point of reference: the rural resource user.

### Natural Resource Management: One Farmer’s Perspective by Glyvyns Chinkhuntha

From an agricultural point of view, natural resource management should be construed as a medium for achieving sustainability in so far as it is influenced by cultural practices and methods of cultivation. Speaking as a farmer, I know that economic incentives drive my decisions. I also know how important it is to have access to credit, markets, and other factors.

Considering the fact that small scale farmers constitute 80% of Malawi’s population, these have been, are, and for a long time to come will remain the most important custodians of the country’s natural resources. The promotion of natural resource management should and of necessity, therefore, focus and target primarily these communities. In these endeavors, however, sight should not be lost of the fact that the communities are composed of individuals each with a separate identity. They possess and enjoy distinct rights, freedoms and obligations as individuals and not as committees or groupings. They will, therefore, act and react much more readily as individuals than groupings.

Over and above that, as humans they possess a conscience just like other members of society, with a complete sense of morals. If they have, therefore, mismanaged natural resources, it has not been out of malice, but that: (a) they have not been appropriately equipped; or (b) they lack and have lacked alternatives, such as capital and energy sources. They are not in themselves the tools that they have been regarded to be. They are the managers and they possess capacity to develop into good and efficient managers given appropriate tools. In other words, they need to be empowered at one stage or another.

While associations seem to have functioned well for centralized buyers of commodities such as tobacco, and for common property resource management, there remains a gap of organizational systems for small farmers in dispersed markets. And clearly extension systems in Malawi are not working. Perhaps, then, we need something new.

One alternative is the “Network” concept, in which individuals retain their separate identities and all activities are dictated by the internal quest for survival propelled by motives for profit and socio-economic welfare. In this system, network farmers have access to a sure and ready market for their produce provided by a contact farmer. Their major function is centered on production. The complex functions of administration, storage, grading, communication, transport and secondary marketing are handled by the contact farmer. (See Figure 2.1 for a graphical depiction of this concept.)

To safeguard the interests of individual players, the functions of the network will be governed by a code of conduct consisting of rules and regulations laid down and reviewed from time to time by a committee of representatives. This committee of representatives would also be used as an organ for dissemination of information on issues of policy, interventions such as extension, liaising between the communities and external players such as government, NGOs and the donor community.

The functions of the organ will be carried out in an atmosphere of openness. It will not be a closed system where the network farmers do not know what is happening on the other side. Players will exercise all their separate rights, freedoms and obligations. All said and done, the system should work.



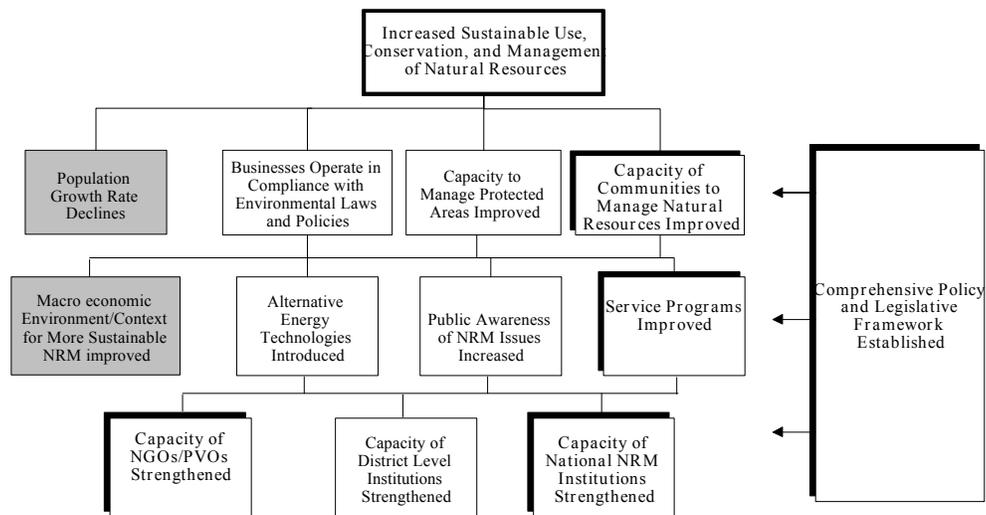
### 3. Meeting USAID’s Strategic Objective in Natural Resources (SO2)

#### 3.1 The Current SO2 Results Framework

USAID/Malawi, together with the various partners and stakeholders involved with the achievement of SO2, including GOM agencies, non-governmental organizations (NGOs), the commercial sector and donors, developed the results framework illustrated in Figure 3.1. This framework identifies the critical intermediate results (IRs) necessary for achieving SO2 (“Increased sustainable use, conservation and management of renewable natural resources”). USAID/Malawi’s environment and natural resources program focusses on five of these IRs:

Figure 3.1

#### Current SO2 Results Framework



### 3.1.1 IR 2.1: Comprehensive Policy and Legislative Framework Established

The basic and unifying element of all other intermediate results, this IR is expected to result in the necessary policies and legislation which will encourage and facilitate activities in support of increased sustainable use of natural resources. Specific attention is focussed on incorporating into policies a broader role for communities, NGOs and the commercial sector in managing natural resources. The program design is to be comprehensive, and includes all major natural resource sectors, including fisheries, forestry, parks and wildlife, water resources, lands (in the context of land tenure) and agriculture (soil conservation).

### 3.1.2 IR 2.2: Capacity of National NRM Institutions Strengthened

This IR is being addressed through the development and strengthening of a national environmental monitoring service; improved capacity for planning, budgeting and allocation of resources; and the creation of an endowment fund to provide a sustainable source of financing for critical natural resource requirements.

### 3.1.3 IR 2.3: Service Programs Improved

USAID/Malawi funded activities in support of this IR are primarily concerned with expanding the adoption of appropriate agroforestry and soil conservation practices through partnerships with government, NGOs and the private sector.

### 3.1.4 IR 2.4: Capacity of Communities to Manage Natural Resources Improved

A planned activity in support of this IR is designed to broadly strengthen community based natural resource management (CBNRM) processes in Malawi, leading to improved performance of ongoing and planned field programs of implementing partners (NGOs, community groups, government and donors). Key objectives include: a) establishment of functioning liaison, communication and information exchange mechanisms between/among the numerous donor and government-funded CBNRM programs; b) strengthened community mobilization skills within NGOs, community groups and government; and c) policy and legislative reform in favor of CBNRM.

### 3.1.5 IR 2.5: Capacity of NGOs/PVOs Strengthened

This IR contributes to all the higher level results noted above. It reflects the importance of the NGO/PVO (Private Volunteer Organizations) sector in, for example, environmental monitoring, the provision of agroforestry support services, supporting policy change, and enhancing the capacity of communities to sustainably manage their natural resources.

## 3.2 Developing an Effective Results Framework

Though the current RF represents significant improvements over previous versions, it still lacks the clarity and specificity that are necessary to function as a bonafide tool for planning, communication, reporting, and management. This section is geared toward helping the Mission further refine, clarify and elaborate its RF regarding SO2. Answers to many of the questions the Mission is now asking itself can be found in a more precise articulation of its development hypothesis, as represented by a clear and complete elaboration of the RF. The following points address issues related to the concept of the RF in general and its development process, followed by comments on the content of the current RF.

The results framework is often seen by many as Washington-driven exercise that takes time away from the real work of implementing activities. It is viewed as only marginally relevant to program success—i.e., a tool for monitoring and reporting results with little value as a management tool. However, when appropriately specified, the RF can serve as a useful tool for planning, communication, reporting and management. Specifically, the results that USAID and its partners intends to achieve, as depicted in the results framework, must establish all of the necessary and sufficient conditions for Malawians to increase sustainable management of their natural resources.

### 3.2.1 Methodology

In assessing whether the current results framework was complete and accurate, the SO2 Assessment Team first tried to envision what a revised results framework might look like. It did so by asking many of those interviewed, “What will Malawi look like if the objective is achieved?” The Team also examined a variety of experiences, both inside and outside of Malawi, where rural producers are successfully reversing the downward spiral of environmental degradation. This cumulative knowledge base helped the Team analyze the current results framework to determine what key results are missing and where there are significant gaps between desired results and underlying causes. In undertaking this exercise, the Team came up with criteria that, if used, can help develop an RF that is useful and meaningful.

### 3.2.2 Criteria for the Development of an Effective Results Framework

Creating or revising an RF should not be a theoretical exercise. It should be solidly grounded in reality and based on practical experience. It is an iterative process, where the process itself is critical.

#### Customer Input

An effective RF must be grounded in reality. It must make sense not only from the perspective of USAID, GOM, activity partners and other donors, but, most importantly, it needs to be understandable from the perspective of the program’s ultimate customer, Malawian rural resource managers. The best way to incorporate that perspective is to include rural resource managers in RF development. Including the customer perspective will help to instill a healthy dose of reality into the process, often clearing away fuzzy thinking and grounding the exercise in what really works. It is significant to note that in the March 1997 workshop to develop a Results Framework for the

Environmental Support Program (ESP), no representatives of communities were present. To encourage more effective participation in an RF exercise, selection of participants from rural communities should include those who have been involved in successful natural resource management activities, such as rural community representatives, NGOs, district government officers, technical agencies, private sector, other donors and academics.

### Founded on Practical Experience

The RF should be seen more as a description of how things do work, rather than a depiction of how one hopes things will work. This helps ground the RF firmly in reality, as too much conjecture and abstract theorizing will render the RF useless. Finding out where people are currently successful at sustainable management of natural resources will help build a results framework based on their experience. The exercise should be sure to identify what happened in these cases that made it possible for these people to succeed.

It could be useful for the Mission to sponsor a reconnaissance study aimed at identifying people and communities that are successfully engaged in sustainable management of natural resources. If such a study were undertaken, the study team should include a cross section of SO 2 team members, including the same mix of people that would be involved in revising the RF. When determining places to visit, it is best to not be limited to project sites—but also look at areas where activities have continued after the end of project assistance. Many projects deemed successful rapidly fall apart when support is withdrawn. The true test of sustainability comes after project support is withdrawn or where project support has never existed. (It is also important to review and understand what assistance is critically needed, why, and how to deliver such assistance.)

### An Iterative Process—Keep Asking, “What else?”

A complete RF should cover all the bases, identifying all critical assumptions and all necessary results to achieve the SO. These results must establish all necessary and sufficient conditions for Malawians to increase sustainable management of their natural resources. Thus, in undertaking the RF exercise, USAID needs to keep asking, what else? It should not confine itself to what USAID or other actors are doing. But rather, it should identify all necessary results, regardless of who, if anyone, is taking responsibility.

### The Process is Critical

In order to be relevant and accurate, the process by which the RF is developed needs to be participatory. It needs to incorporate the viewpoints of all relevant stakeholders. This process is critical in order to capture all of the necessary steps that will be crucial in achieving the strategic objective. In addition, the process is itself a result. As such, it should be included as part of the RF. This will help identify the integral nature of the process and keep it from being seen as something additional or extraneous to the SO.

### Expand the RF narratively

The graphical presentation of the RF is only an illustration of the SO development hypothesis. A full narrative description should not only define the IRs, but include information on all causal linkages, indicators, and activities engaged in support of IRs by all parties.

### Develop Results Packages

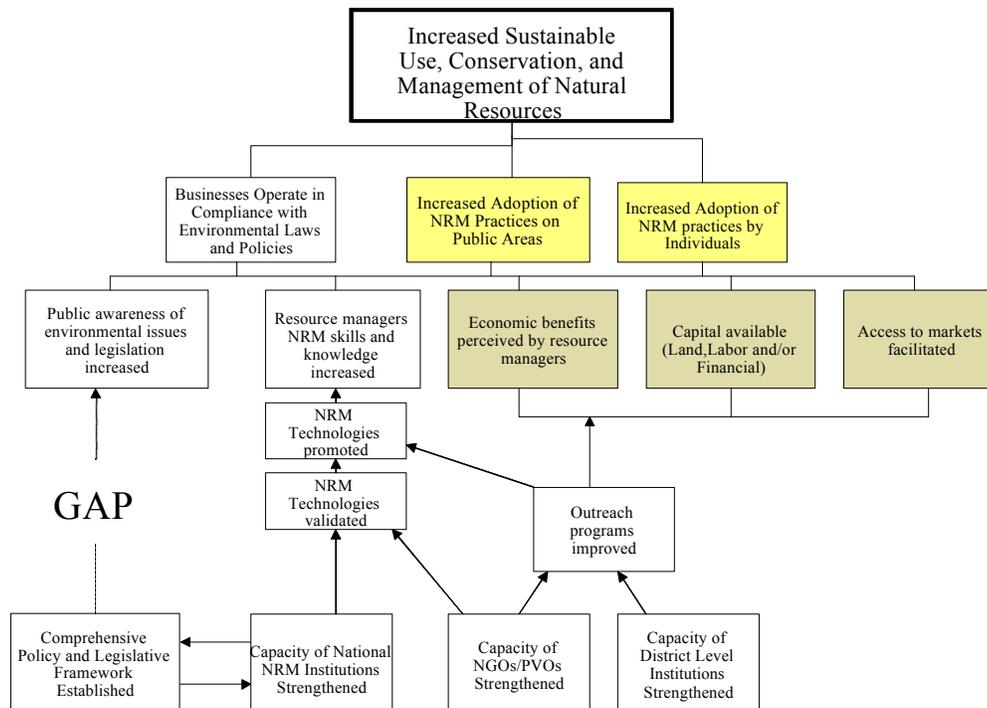
The various components that make up the NATURE program should develop their own results packages which can include a more detailed RF for their particular activity. If there are any overlap in IRs, this indicates need for expanded teamwork and cooperation amongst activities.

### 3.3 A Modified Results Framework - Missing Pieces and Causal Gaps

The modified results framework presented in Figure 3.2 represents some of the most significant changes that should be considered. These are offered as “food for thought” in regards to a revised RF, as a participatory process for revising the RF, as noted above, is critical and should itself be a result.

Figure 3.2

#### 3.3.1 “Show Me the Money!”



Rural producers seldom adopt a practice that is not in their own, short term economic interest. This perception of quick economic benefits is generally agreed to be a necessary enabling condition for increased adoption of natural resource management practices. This may partially explain the slow adoption rate of contour planting of vetiver, which requires significant labor investment but in most cases takes several years to show a positive return. On the modified RF, this result could be worded “Economic benefits of NRM practices perceived by resource managers.”

### 3.3.2 Natural Resource Management does not Come Cheaply

Even if short-term payback is significant, people still need labor and capital to invest in NRM practices. In the interest of sustainability, subsidies may be the least attractive means of achieving this result. Stand-alone credit schemes are difficult to manage and are also rarely sustainable. But linking NRM and credit to other income generating activities has shown real promise in some countries. In Senegal, an Africare project provided a loan guarantee fund so that women’s associations could obtain commercial loans for grain mills. As part of the contract between the NGO and the associations, the women implemented NRM practices such as composting, agroforestry, and sustainable gardening. Operating the grain mills provided immediate income, but once the NRM investments were in place, they also began to generate revenues. In Malawi, this same success could be replicated by linking conservation practice to some of the successful cash crop promotion efforts implemented by the SO1 team. This result could be worded “Capital available (Land, labor, and/or financial).”

### 3.3.3 Access to Markets

Having easy access to markets permits rural producers the possibility to generate cash for personal needs and to reinvest in their resource. It can also help transform subsistence farming into veritable commercial businesses, the backbone of the rural economy. Community-based natural forest management in West Africa provides an example of the importance of this element in the RF. This practice became popular when village based markets were set up to sell fuelwood on equal footing with commercial woodcutting enterprises. Again, the links to SO1 activities are evident. This result can be worded “Access to markets facilitated.”

### 3.3.4 Ability to Capture Policy Reforms

The NATURE program promotes enabling policy reform and legislation that devolves resource management rights to local communities and rural producers. However, unless resources managers are aware of their new rights and responsibilities, policy reform will have little impact on the ground. Rural producers need to know their new rights and responsibilities under new policies and legislation if they are expected to invest in sustainably managing those resources. This is a crucial result that is only partially addressed by the current RF in its policy framework IR. It is necessary to establish the enabling policy framework, but there is a large gap between establishing policy at the macro level and seeing that this policy is understood and implemented in the field. More attention

needs to be devoted to the “transmission belt,” that is, the steps needed for implementation of the policy reforms.

A variety of activities can be undertaken to achieve these results. Some examples include : programs related to increasing awareness of new CBNRM enabling legislation at the community level; land registration for farmers who adopt certain conservation practices; or assisting community-based organizations and the appropriate government authority to draw up co-management agreements on public lands. This gap is addressed in greater detail in the Policy Reform section (4.1) of this report.

### 3.3.5 Need for Greater Precision - “What is Capacity?”

The current RF identifies “increased capacity” of individuals, associations and institutions at various levels as significant results to be achieved. Indeed, that phrase appears five times on the current results framework. While everyone agrees increased capacity is vitally important, what, exactly, does that mean? Capacity building usually makes one think of training programs, but in the case of farmers, lack of initial capital could also be considered a capacity issue. In the modified RF, capacity results on the top level have been broken down into some of their essential components. Skills and knowledge are a separate capacity result, as is capital available. The same should be done for other capacity strengthening IRs, so that it is clear exactly what capacities are being strengthened and for what purpose.

## 3.4 Linkages

Given the recommended modifications to the results framework, linkages between SO1 and SO2 should be strengthened. To achieve their objective—i.e., increased agricultural incomes on a per capita basis—the SO1 team has emphasized increasing cash crop production and yields and facilitating smallholder access to markets. Results have been impressive as farmers have readily responded to market incentives created by the program. For instance, a principal activity of SO1 is the creation of large regional marketing associations to help smallholder farmers benefit from marketing advantages of large organizations and gain access to international markets in ways that are impossible as individuals.

### 3.4.1 Linkages between SO1 and SO2

The SO1 team is already aware of the need to establish stronger links to the NRM activities under SO2. The SO1 section of the R4 states “Improved soil conservation and crop rotation, particularly on lands that are currently intensively monocropped with a cash crop such as tobacco, is imperative.” (R4, p. 13) The SO2 team also recognizes the value of linking with SO1. The SO2 portion of the R4 states “progress under SO1 is considered key to the success of SO2, as additional income provides a ‘cushion’ for farm families, enabling them to invest in more appropriate agricultural/NRM practices.” (R4, p. 24)

In order for the two SO efforts to realize these benefits of linkage, the connection needs to be made primarily at the field level. At present, field-level cooperation of the two programs is not apparent. During a field trip to one of the SADP “farm day” sites, a government extension worker talked about using vetiver to control erosion. However, none of the SADP workers interviewed knew that a MAFE demonstration site, where vetiver plant material is readily available, was located just a few kilometers away.

A few areas where field level cooperation is possible include:

Training of SADP staff in soil conservation and agroforestry. MAFE does this training routinely for other partners. All SADP TSAs should be trained in basic soil conservation and agroforestry principles and skills.

Inclusion of NRM options in the SADP production/demonstration package. SADP workers need to better understand and promote the vital role that soil conservation, maintenance of soil organic matter and other NRM practices can play in enhancing crop production. For instance, while “farm day” demonstrations include a tour of chili pepper fields fertilized with pig manure, organic manuring is promoted only as a poor farmer’s option, for those who cannot afford to “do it right.” However, such efforts may result in better quality or higher yields than plots fertilized with chemicals.

Conduct marketing studies on agroforestry products. Several agroforestry products, such as pigeon peas and moringa oil, have international markets. SADP’s experience and skills in accessing international markets for other crops could be brought in to help with feasibility studies for promising agroforestry crops. As pigeon peas may be the crop that merits most attention, joint efforts to promote pigeon pea cultivation and marketing could start immediately.

Co-location of MAFE and SADP sites. New MAFE or partner sites could be located in together with SADP sites. This type of joint effort would allow both programs to take advantage of the other’s benefits.

Environmental impact monitoring of burley tobacco cultivation. (More information will be provided by Paul Bartell in a separate memo.)

### 3.4.2 Making Linkages Operational

Both SO1 and SO2 should detail the causal connections in planning documents, such as the results framework. However, to make the linkages operational, SO1 and SO2 should consider joint financing of components. (Asif or Tony to expand.)

## 3.5 Indicators

Once a revised RF is formulated, there may be a need to develop new indicators corresponding to the new IRs. This section analyzes the current set of SO2 indicators by the following standards:

As management tools, performance indicators must first and foremost be valid, useful, and practical to the managers and teams that are operationally responsible for achieving the results being measured. They must appropriately measure what, in fact, we want to achieve. They must provide information that is actionable by managers and teams. And they must be collectable at a reasonable cost... the use of comparable performance indicators should be encouraged for similar programs to the greatest extent possible. This is particularly true for strategic objectives and key intermediate results, which should be directly relevant to broader Agency-wide goals. (AID/W 1996)

This section examines the current indicators and suggests how they might be improved to better capture results. Several new indicators are also offered.

### 3.5.1 SO2-Level Indicators

Three indicators monitored at this level are:

- Adoption of improved soil conservation practices
- Adoption of improved soil fertility practices
- Adoption of improved tree planting practices

Overall, the idea of monitoring the adoption of NRM practices is very good. Adoption of practices is a quantifiable, gender-specific change of behavior that is relatively easy to measure and is logically related to underlying causal results. Adoption of many NRM practices has been proven to have strong correlation with favorable biophysical changes and improved socio-economic welfare. A shortcoming of this indicator set, however, is that they are rather narrowly focused. They are concentrated in the agriculture sector, they reflect progress made by one SO2 activity (agroforestry and soil conservation), and do not measure impact of adoption.

The following suggested additions and modifications aim to capture results that are more illustrative of the broad scope of the current SO which aims to affect change at the national level in a variety of sectors.

Rate of compliance with fish net mesh size limitations: This indicator captures results in the fisheries sector and is strongly related to new fisheries legislation supported under the NATUR E program. As fishery associations are granted more rights and responsibilities for the fisheries they exploit, they have been much more keen on setting and complying with regulations that will enhance sustainable yields. GTZ is the main actor in this arena and would be the source of information. A planned expansion of the GTZ program to Lake Malawi is expected to have national impact on increasing fishery yields.

Number of hectares under community-based natural forest management: Though embryonic at this point in time, the new Forestry Act of 1997 has set the stage for increased community participation in sustainable forestry activities. Now is a good time to establish baseline information and set up a monitoring system for this indicator. The relatively few actors in this arena should make gathering this information fairly easy.

Environmental and socio-economic impact of adoption of practices: While impossible to monitor the impact of adoption on every piece of land where agroforestry or soil conservation is practiced, an appropriate sampling methodology is in order. According to the 1998 MAFE work program, such a plan is scheduled to be operational this year. Results from this impact monitoring exercise would complement the current indicators related to adoption of practices.

Decrease in time spent to fetch wood: As families adopt agroforestry practices, significant timesaving benefits for the wood gatherers of the household will be realized. This indicator is highly gender-specific and would be complementary to the biophysical and economic measurements planned as mentioned above. As with other impact-related indicators, it should be measured using appropriate sampling methodologies.

Percentage of tobacco barns made with live trees: Current indicators include living barns as part of the general count of new trees planted each year. As destruction of forest resources to build tobacco barns is perceived by many to be a major threat to the environment, having this figure reported separately would be very useful. As MAFE develops stronger ties with SADP, there should be appreciable results for this indicator.

### 3.5.2. IR-Level Indicators

#### IR 2.1 Comprehensive Policy and Legislative Framework Established

The single indicator for this IR tracks the enactment of new policies and legislation. The R4 notes that much of the process leading up to enactment is not reported. The indicator could be modified to capture this process, using a “scorecard” or “index” type of indicator, similar to that used for IR 2.2. (For more information on the use of scorecards and indices, see AID/W Environmental Indicators Working Group, February 20, 1998, p. 14.)

Another improvement to this indicator would be some sort of judgement of the quality of new policies and legislation. New legislation could be rated according to its potential for establishing the enabling conditions leading to achievement of SO2. Uniform criteria would need to be developed, but once done, they would be quite useful in tracking downstream impact of policy reform. “Good” policy should have greater positive impact than less favorable policy.

Finally, if the Mission opts to take a more active role in promoting policy communication and implementation—i.e., addressing “transmission belt” issues—appropriate indicators would need to be developed.

#### IR 2.2 Capacity of NRM Institutions Strengthened

This IR seeks to improve the capacity of NRM institutions at the national level by equipping them with environmental information tools and analytical capability to make informed decisions regarding NRM strategic planning and policy making. The two current indicators at this level are: (1) prototype environmental system (EIS) developed and applied; and (2) environmental research and training strengthened.

While these indicators are useful in tracking progress in developing tools and training personnel, they fall short in measuring the extent to which this new capacity is actually used to make better decisions. For example, the first indicator tracks capacity development to the point where EIS analyses are produced and distributed (referred to Phase III and IV in the R4). Another phase should be added which tracks how these products were used to make better decisions. The indicator could be stated as: “Number of EIS analyses performed by GOM personnel and used for strategic planning or policy making.” A similar addition could be made to the second indicator: “Number of GIS products created by GOM personnel and used for improved NRE planning and management.” While there is some overlap in the two, the former tracks more sophisticated analyses for high-level decisions whereas the latter includes simpler mechanisms, such as a map provided to an NGO to locate a fuelwood depot.

### IR 2.3 Service Programs Improved

There are three current indicators:

- Agroforestry technologies and support services tested, evaluated and adapted at farm level before broad-based extension to farmers
- Ongoing partnership agreements
- Agroforestry/soil conservation support provided through partnerships

A revised RF should break this IR into research- and outreach-oriented results. The first indicator is appropriate for a research-oriented result and requires no change. The second and third indicators are appropriate for an outreach-oriented result but could be improved. For instance, information on partnerships could include not only the number of partnership agreements but also details on the nature of these partnerships. A breakdown by category (e.g., donor, GOM, NGO, etc.) or scope (e.g., national, regional, district, etc.) could add valuable data for management. Similar improvements can be made to the third indicator, which tracks inputs provided to partners. While this indicator provides a useful measure of MAFE’s ability to supply training and materials to partners, it does not measure the effectiveness and impact of those furnished inputs. Creating a new IR related to promotion of agroforestry/soil conservation technologies with an indicator that tracks the number of demonstration sites or other relevant activities undertaken by partners may be worthwhile.

Another measure of the effectiveness of outreach programs is customer satisfaction. For MAFE, the intermediate customers are the collaborating partners. An annual evaluation could be conducted in which MAFE partners are asked to evaluate MAFE performance based on several standard questions and a rating scale. The results of these evaluations would serve not only to improve MAFE’s outreach efforts, but could be reported as indicators of improvement over time. This type of evaluation could be used directly with the rural population, though the evaluation questionnaire would need to be modified appropriately.

## 3.6 Assessment of Monitoring and Evaluation Requirements

### 3.6.1 Performance Monitoring

Monitoring program performance according to the current indicators does not require special effort. Most of the information required is collected routinely by implementing partners. Some of the new or modified indicators, especially those assessing biophysical and socio-economic changes, will require additional expertise and increased level of effort. Yet the capacity within the NATUR E program already exists and current plans to gear up for this increased responsibility appear adequate.

### 3.6.2 Evaluation and Research

Performance monitoring tells what is happening, but evaluation and research provide information to explain why. As pointed out in other parts of this report, the evaluation and research component of the program needs to be strengthened. A better understanding of household level decision-making processes, for example, will improve adoption rates of agroforestry practices. The current study underway by Ian Hayes will contribute greatly to this understanding. In addition, as mentioned earlier, the entire results framework could be greatly enhanced by an appreciation of current NRM “success stories” in Malawi.

## 4. Review of Activity Areas

This chapter provides a brief review of ongoing activities and indicates recommended areas for strengthening. The areas covered are: policy reform and implementation; environmental monitoring; agroforestry, community-based natural resources management (CBNRM); endowment fund, performance-based budgeting systems (PBBS); and institutional development.

### 4.1 Policy Reform and Implementation

#### 4.1.1 Progress to date

A basic unifying element of all other intermediate results is the establishment of a comprehensive policy and legislative framework. The NPA component of NATURE has supported policy reform. Specifically, it called for the establishment of a national environmental policy and the review and revision of sectoral policies and legislation in land, agriculture, water and irrigation, forestry, fisheries and wildlife in order to provide an enabling framework for environmental management and conservation.

Policy reform has come very far in a short period of time. The degree of change, and the speed at which such change has occurred, has been broader and faster than perhaps any other country in Africa. Since NATURE's 1995 inception, many new policies and legislation have been adopted, including the National Environmental Policy (NEP), the Environmental Management Act (EMA), the National Forestry Policy, the Forestry Act, and the Fisheries Conservation and Management Act. In addition, new policies in fisheries, wildlife and land use and management are in an advanced state of development. Sectoral policies in other areas, however, such as energy and water resources, still need to be reviewed and appropriate legislation revised or developed, as may be appropriate.

In general, the reforms have changed many of Malawi's policies from a "command and control" approach to one that's community driven. Government policy now recognizes the fact that the sustainable utilization of natural resources requires the involvement of local communities, NGOs and the private sector in the implementation of programs and management of the environment and that this must be based on a transfer of authority to the local level (e.g., through empowerment of community-based organizations or co-management). (For more details on the changes in the specific policies, please see the Technical Report on Policy Reform.)

#### 4.1.2 A Policy Implementation "Transmission Belt"

The implementation of the sweeping policy reforms that have occurred will require a whole series of steps, or a "transmission belt," that must be achieved before one can start to see results on the ground. This assessment identified 3 main steps that will be discussed in this report: awareness strengthening; institutional role redefinition; and capacity enhancement of government services and local communities and organizations. However, more may be required.

## Awareness Strengthening

The new policies, and the corresponding economic and political liberalization, open up a world of new opportunities for resource managers. Yet these new opportunities must be recognized and perceived. It is not enough simply to devolve resource management rights to local communities and rural producers. They must be aware of their new rights and responsibilities and have access to the means with which they can take advantage of them. Thus, there needs to be an aggressive system to communicate changes and benefits of those changes to resource users.

## Redefinition of Roles of Public and Private Sector Institutions

Implementation of the new policies will require a reorientation of the civil service away from its traditional policing role to one of extension. While enforcement will remain important, government NRM agencies will need to develop new, more amicable, relationships with communities. The shift in orientation needs to be institutionalized in ways that put the resource user/manager squarely at the center of decision-making. Thus, institutional roles need to be redefined. This shift will necessitate training and awareness at all levels, within both the government and communities.

## Enhancement of Capacity

Once roles are clarified, it's important to examine how best to enhance the capability of the government to accomplish those activities that are clearly within its purview. As it stands now, government capacity is weak. Agencies are spread very thin, with a wide range of responsibilities yet without the adequate resources to achieve them. The devolution of the locus of decision-making to resource users can help to focus government activities. The end result can be a civil service that is better able to carry out its duties because it will have more resources to devote to its now narrower scope of work.

In addition, for an effective system, the enhancement of organizational and management capacity of community-based organizations and associations of rural producer and user groups also needs to be considered.

### 4.1.3 Implications for USAID

The NATURE program promotes enabling policy reform and legislation that devolves resource management rights to local communities and rural producers. However, unless resources managers are aware of their new rights and responsibilities, and have the capacity to capture opportunities, policy reform will have little impact on the ground. More attention needs to be devoted to the "transmission belt," that is, the steps needed for implementation of the policy reforms.

## Continue Facilitation of Policy Reform Process

While new sectoral policies and legislation still need to be adopted in a number of sectors, the policy reform process appears to have gained its own momentum. For example, policies in fisheries, wildlife and land use are in an advanced state of development. In other sectors, such as agriculture, energy and water resources, the drive is weaker. In this regard, USAID may want to pursue two paths: (1) provide support to the on-going process (essentially, provide positive reinforcement for the process); and/or (2) assist additional reforms in specific “laggard” sectors. In general, this type of support would take the form of technical assistance (e.g., legal) and analysis to assist in the actual development of policy papers and legislation. USAID should focus its support on those areas which are strategically important as well as those areas which are demonstrating progress and have the potential to advance.

## Focus on Subsidiary Legislation

The next procedural step in the policy reform process is the development of subsidiary legislation for each of the sector policies. Subsidiary legislation provides detailed rules and regulations on what different actors can and cannot do under the new policies. In essence, it lays out interpretations of specific legal principles.

Subsidiary legislation still needs to be developed for all of the sector policies. This step is critical. However, before such regulations can be developed, institutional roles need to be clarified. USAID could facilitate the process by providing technical assistance.

## Redefine Institutional Roles

There is a need to create a framework under which co-management can support progress toward increasing sustainable practices. While the new and revised policies redefine the role of government, existing structures and incentive systems within the civil service are set up for a different purpose. Consequently, institutional roles need to be clarified and reformed. In order to do so, the appropriate role of the state needs to be considered. Two primary roles for government stand out: that of “patron” and that of “referee.” As patron, the government could facilitate access to extension and support services (including credit and technology) provided by it and/or its partners such as NGOs, the donor community and the private sector. As referee, the government could help set and enforce the “rules of the game,” acting as regulator and formulator of policies or other regulations that aim at safeguarding the vulnerable against abuse, exploitation and a host of other unfair practices. USAID could help clarify these roles and then help to identify ways to best enhance the capability of the government to accomplish those activities that remain clearly within its purview. This will also involve changing the way the government operates—how people are trained, promoted, etc, and the way services are organized and managed.

## Strengthen Awareness of Policy Changes

The shift in orientation will necessitate training and awareness at all levels, within both the government and communities. There are many ways this can be achieved. The following ideas are illustrative and are not meant to be comprehensive. For instance, the popularity and prominent

position of NGOs can be tapped and used to transmit messages through the print media concerning policy changes. The printing, publishing and circulation of their various publications, such as newsletters, pamphlets and posters can be increased in order to reach more people in the rural areas. Similarly, a lot of work has been done on environmental issues in the electronic media. With an extra channel or other support, the Malawi Broadcasting Corporation might be able to do more. In primary schools, the curriculum could be reviewed and/or developed to emphasize environmental education, perhaps within the scope of the subject of agriculture. Other avenues too, such as drama schools, theater groups, music bands and the like, can be used to help transmit environmental messages. This has been done successfully in other areas, such as USAID's GABLE program in the promotion of education for females. USAID could support these or other efforts.

### Enhance Opportunities to Encourage Adoption of NRM Practices

Individual talent, initiative and innovations related to natural resource management need to be encouraged, explored, monitored and developed. Most importantly, rural producers seldom adopt a practice that is not in their own, short term economic interest. This perception of quick economic benefits is generally agreed to be a necessary enabling condition for increased adoption of natural resource management practices. Second, even if short-term payback is significant, people still need labor and capital to invest in NRM practices. Linking to other income generating activities is one way to address this. Linking activities to places where the Malawi Social Action Fund (MASAF) has already invested in social infrastructure might provide another avenue. Additionally, where potential exists, direct assistance could be given on a case by case basis or through lending agents to build capital.

## 4.2 Environmental Monitoring

Soil erosion, deforestation, water and air pollution, and declining biodiversity are just a few of the environmental problems facing Malawians. In order to better assess the gravity of these problems, analyze root causes, and provide relevant information for policy-makers, planners and resource managers, USAID/Malawi launched the Malawi Environmental Monitoring Program (MEMP).

### 4.2.1 Progress to Date

The original purpose for the Malawi Environmental Monitoring Program (MEMP) when it was initiated in 1993 was to identify and quantify the environmental impact of burley tobacco liberalization, a policy reform that had been supported by USAID's Agriculture Support and Policy Program (ASAP). Since then, its scope has expanded to include the establishment of a prototype environmental information system (EIS) that could eventually serve as a model for a nationwide EIS. These shifting objectives imposed on MEMP by USAID, along with an orientation that was not demand driven, has hindered progress to date.

### Monitoring Environmental Impact of Burley Tobacco Expansion

MEMP's effort to assess the nationwide environmental impact of the expansion of smallholder tobacco cultivation has been largely inconclusive. (See Tobin 1997, Mohamoud & Burger 1998). Some of the problems associated with this failure to produce the intended results include:

- Selection of sites that were unrepresentative or difficult to monitor;
- Insufficient quantity and quality of data;
- Inadequate institutional capacity for data analysis;
- Inconsistency of cultivation treatments from one plot to another; and
- Lukewarm involvement of GOM institutions and personnel.

Based on lessons learned from this experience, a new approach has been formulated which seeks to overcome the weaknesses of the past. The new methodology will incorporate a number of improvements, including the monitoring of sites that are more representative, gathering data that are more easily measured, enrolling the services of Bunda College students, and looking at a broader range of land use management practices. This new approach is much more likely to provide significant information about the environmental impact of not only burley tobacco but also other agricultural practices. The use of collected data to calibrate mathematical soil loss models should also be of interest for all those involved in soil conservation in Malawi.

### Environmental Information System

MEMP also is developing a prototype environmental information system (EIS) to help target priority areas for field interventions. Its long term objective is to develop national capacity to meet the data needs for effective environmental policy making, planning, management and reporting for all of Malawi. MEMP has focused its effort in the Middle Shire Valley, one of the country's most critical watersheds. A unique feature to the prototype is that it will not only provide decision-makers with biophysical information related to the nature and severity of environmental degradation, but will attempt to link these physical phenomena with the underlying social causes.

One major obstacle to the successful development of the prototype has been the marginal involvement of Malawian cadres. As NPA funds have not been forthcoming to support their involvement, it was hoped that a World Bank-funded project could fill the gap. Unfortunately, "Bank funding for this project has only now been approved (a year later than expected), and the Malawian team has yet to be officially named." (Eastman 1998, 6). In spite of this problem and related delays, the MEMP team feels confident that the necessary components are in place and completion of this activity will be forthcoming.

### Building Analytical and Research Capacity

As part of the EIS capacity building agenda, Clark University is providing significant inputs in the areas of data, knowledge and technology. A number of key data sets suitable for analysis using Geographic Information Systems (GIS) have been provided. Standards for developing mapping and other data sets in order to assure compatibility have also been addressed. As to knowledge, more than 70 GOM officials and University faculty have been trained in the use of GIS and related technology. In addition to receiving regular training in GIS, faculty from three colleges have received instruction and training materials to conduct their own courses in environmental information technologies.

Finally, in conjunction with the University of Arizona, the necessary hardware and software have been supplied to relevant Malawian institutions.

The impact of these activities (see Eastman 1998, 7-8) include:

- Ongoing use of computer systems for their intended purposes;
- Creation of a dedicated core of environmental analysts;
- Growing demand for GIS products; and
- Indigenous creation of a GIS users group (MAGIC).

The other major effort in capacity building is the establishment of a small grants mechanism for funding environmental research through the University of Malawi. Twelve grants amounting to \$5,000 each were recently awarded to investigators at three colleges that are part of the university system. Research topics covered a wide variety of environmental themes, including soil erosion, biodiversity, water quality, and deforestation. While the stated goal of this program is to build environmental research capacity, study results themselves may provide valuable information for policy makers and others.

#### 4.2.2 Implications for USAID

There are several ways the demonstrable impact and focus of the environmental monitoring component of NATURE could be enhanced. These include more timely delivery of products and services and greater emphasis on a demand-driven approach. These and other recommendations are discussed below.

##### Timely Delivery of Products and Services

Given the perceived rate of decline of Malawi's natural resource base and the urgency to establish policies, adopt strategies and implement projects to reverse environmental degradation, timely delivery of information to those who need it is essential. As gathering primary data is a costly and time-consuming exercise, the EIS should focus on compiling, standardizing and archiving existing data in a form that is rapidly accessible. The balance between timeliness and accuracy of data should be kept in mind. Because many decisions must be made within short time frames, having some information, even if incomplete or imperfect, may be better than having no information at all.

##### Demand-Driven Information

An effective EIS must also provide information that is relevant to the needs of those who use it. MEMP should increase the profile of the program as a provider of relevant information in the environmental community, not only within government, but amongst donors, NGOs and others operating in the NRE sectors. Tobin's 1996 assessment of MEMP concluded:

There is no link between the data collected and any identifiable demand or need for these data. The GOM's first environmental monitoring report does not provide recommendations relevant to mitigation or suggest any changes in policies. Few

policymakers are aware of what the MEMP offers, and none of them have requested analyses of the MEMP's data or proposals for policy changes. (Tobin 1997)

This state of affairs has been improving. One of the cited impacts of MEMP is a growing demand for spatial analyses and digital map products. However, much remains to be done. MEMP cannot expect clients to come to them. There must be a concerted marketing effort to inform and educate potential clients about the information services available within the various GOM institutions where training already has taken place and capacity improved. In addition, to further enhance the sustainability of the system, MEMP should work with relevant GOM partners to satisfy client demand rather than providing requested information directly.

Greater effort also should be made to both make decision makers aware of the small grants program and the specific themes being researched and to involve them in the formulation of research proposals. This will help ensure the resulting information is relevant to the needs of those most likely to use it.

### Results Orientation

Information for information's sake is a luxury Malawi cannot afford. To ensure the greatest impact, the EIS should: (1) prioritize targets of data collection, reporting and analysis toward achieving SO2 results; and (2) make sure its products and services are accessible to those who can use it. While maintaining a demand-driven orientation, a system for prioritizing demands should be established in order to ensure information and services are used to achieve results. This will also help prevent the EIS from being pulled in too many directions at once.

### Incorporation of Socio-Economic Data

While monitoring biophysical changes in Malawi's environment is important, mitigation of adverse impacts requires in-depth knowledge about the underlying socio-economic factors related to those changes. The ongoing efforts in this area need to be continued and strengthened.

### Sustainable Institutional Base

Even though personnel may be trained and data collected and analyzed, the EIS needs a stable and sustainable institutional base in order to be maintained over the long-term. Given the current financial weakness and instability of government ministries, USAID may want to explore the feasibility of housing the EIS in a separate institution that has the potential for becoming at least partially financially self-supporting. One possible model is the Centre de Suivi Ecologique (CSE), a semi-autonomous institution in Senegal that is charged with environmental monitoring. The CSE is already recovering partial costs of its operations by providing services for fees to the development community. Another model is Malawi's Centre for Social Analysis, attached to Bunda College.

### Impact Indicators

MEMP needs to capture and report the impact of its capacity building activities. Eastman reports several examples where government personnel used new skills to produce reports or perform analyses that were used by decision-makers. (Eastman 1998) These instances should be tracked and reported. One indicator to measure improved capacity is the number of EIS products developed by Malawians that have been used in NRE programs or policy decisions. As MEMP begins to focus on providing information to clients that are actively engaged in achieving SO2 results, the number of examples will increase significantly.

## 4.3 Agroforestry

### 4.3.1 Progress to Date

In 1992, USAID began supporting a research-focused agroforestry program, the Malawi Agroforestry Extension Project (MAFE). In 1996, having made significant progress toward identifying and demonstrating technically viable practices, the program's focus shifted to promoting national-level adoption. Adoption is facilitated through partnerships with smallholders, NGOs, the private sector, and donors. The shift also involved expanding the supply of seed and other materials, and the "mobilization" of technical services and training opportunities.

A key MAFE partnership is with the European Union's program, PROSCARP, which targets improved soil management. MAFE provides technical expertise and backstop while PROSCARP finances broad-scale field implementation, training, and community-based activities. Both partners work synergistically, with PROSCARP providing information from implementation so that MAFE can further develop and refine the efficacy of its technical prescriptions to better meet the anticipated needs of smallholders. Both programs monitor progress and share results to facilitate progress.

MAFE has made significant progress toward effective partnering as Malawian farmers are beginning to adopt agroforestry practices at what appears to be an increasing rate. Concurrently, PROSCARP is initiating a household decision-making monitoring program intended to feed relevant information back to MAFE and for the purpose of adjusting its own efforts as necessary.

Several adoption constraints have been noted by the partners. These include: shortage of seed and planting material; the preference of farmers to start on a small-scale; labor constraints, especially with respect to households headed by women; limited experience of extension staff in new and emerging technologies developed by MAFE; and establishment of an accurate and timely monitoring and evaluation (M&E) system to record rates of adoption. To address these challenges, MAFE has initiated or completed the following activities:

- establishment of a network of vetiver nurseries
- partnership arrangements focused on seed collection and distribution;
- partnership with a Rockefeller Foundation supported study of related socio-economic factors affecting adoption, including consideration of gender issues; and
- establishment of a tested and modified community-based M&E system that reportedly produces timely results at a low cost.

### 4.3.2 Implications for USAID

While MAFE's efforts are producing successful results, much can be done to enhance and facilitate the impact. Suggested modifications center around augmenting the focus on resource-user strategies; strengthening outreach capacity; and enhancing partnerships and linkages.

#### Focusing on Resource-User Strategies

To enhance and expedite adoption, initiatives need to be designed in fuller view of the strategies resource users employ to secure their livelihoods. Such an application is critical to initiating efforts that will catalyze adoption that is self-sustaining and self-propagating.

Resource users' decisions on which activities to undertake are complex, vary across households, and change over time. Yet the success of adoption programs hinges on their fit within the decision-making processes of smallholders. Consequently, these strategies need to be understood if new initiatives are to be made as relevant as possible to rural people. Adoption and stakeholding in agroforestry initiatives are unlikely if people fail to perceive how and where it complements their livelihoods. Agroforestry practices that do not meet these criteria will not be adopted. Because households themselves have the most complete and accurate sense of what will improve their livelihoods, an "adoption-driven" design will likely produce results more effectively.

The design of agroforestry initiatives, therefore, needs to be driven by an understanding of: the core needs and basic necessities of households; the value and significance, from a household's perspective, of cropping and livestock, wage employment, cash remittances, and wild resources (e.g., trees, plants, river resources, etc.); a smallholder's perception of risk; the way in which cash plays into household strategies (i.e., certain core needs can only be met with cash; hence, the demand for that cash is extremely high); strategies employed to meet needs and cope with crises (how households combine their options); and factors that influence household choices and that are likely to result in modified strategies.

Additionally, such information is useful in gauging whether households who have adopted practices have done so because of direct or indirect subsidization or "peer" pressure or because they see and enjoy the benefits of these endeavors. Moreover, such an understanding is critical to effectively training extension staff and other community-level workers, and to reaching the most highly constrained shareholders, notably female-headed households.

While work in this area has commenced (see Hayes, 1998; Chapter 7 of Orr et al., 1998; and Peters, 1996), it may be necessary to undertake additional research in order to fill gaps in our understanding with respect to the Malawian shareholder perspective. Additional research will also help update our understanding so that it is current with any policy/macro factors having a recent and significant impact and enhance our knowledge of how these perspectives/strategies change geographically, seasonally, and according to wealth and gender status.

Thus, to more fully incorporate the resource user's perspective in its agroforestry initiatives, USAID should:

- incorporate the resource user's perspective of what contributes most meaningfully to household livelihoods in the design of its program;
- test and identify agroforestry techniques that provide short-term benefits (which drive innovation at the resource user level) and build the program around these techniques;
- establish linkages between techniques that provide short- and long-term benefits; and
- modify program according to information from adoption monitoring and update d reports on household strategies.

### Strengthening Outreach Capacity

In order to enhance results, partnerships with GOM extension agents and technical personnel already initiated should be strengthened and expanded. While MAFE and PROSCARP have finite life spans, agricultural extension is likely to serve Malawian farmers as long as farming remains critical. Hence, building sustainable extension capacity can have significant returns. However, extension capacity has been restricted by insufficient financial and personnel resources. In addition, a command-and-control approach which has, until recently, been the national policy has inhibited the spread of innovative agroforestry techniques.

Strengthening the extension service will increase its value to MAFE as a source of feedback and information on what is working and why. To further enhance outreach capacity, USAID should continue and/or initiate several mutually-reinforcing approaches. These include:

- programming funds to target district-level ADDs and extension resources;
- building awareness and training within the extension service of changes brought forth by recent policy reforms. This should include information on facilitating and fostering community dialogue;
- building awareness at the community level of new opportunities brought about by recent policy reforms. This will enhance communities' ability to request those types of extension service that will be most beneficial;
- continuing to transfer information gained by MAFE research to all interested parties; and
- adding extension personnel to the MAFE team, including (but not necessarily limited to) representative GOM extension staff;

### Enhancing Partnerships and Linkages

Collecting information at the community and farm level can be extremely expensive and time consuming. Commercial-level agriculture, energy issues, potential income-generating enterprises, and CBNRM activities are all related and linked to agroforestry initiatives and research. These entities

share the need for similar information in relation to household strategies and technical issues. Successful partnering between SO1, CBNRM, and the energy sector potentially can enhance the level of participatory/applied research and reduce the cost and time involved with the acquisition of such information.

Furthermore, communities with limited labor resources are sometimes approached by numerous community level workers (GOM, NGO, etc.)—often in excess of their capacity to meaningfully respond. Approaching communities as a single entity—with an amalgamate of the interests listed above—could aid in solving this problem. Established partnerships and information sharing between MAFE and other entities could provide an enormous step forward in terms of realizing a “single entity” approach to community development.

To enhance collaboration, USAID can:

- incorporate information and activities from other initiatives (involving, for example, fuelwood and income generation) to create a blend of options that includes appropriate agroforestry techniques;
- enhance linkages with SO1. This can include training of SADP staff in soil conservation and agroforestry; incorporating NRM options in the SADP production/demonstration package; conducting marketing studies on agroforestry products; and co-locating MAFE and SADP sites. (For more details on these recommendations, see section 3.4.1 on linkages between SO1 and SO2); and
- augment and forge the partnerships necessary to promote and present such a blend of options to communities as a single entity.

#### 4.4 Community-Based Natural Resources Management (CBNRM)

The concept of community-based natural resource management (CBNRM) is a cornerstone of SO2, permeating the policy reform process as well as project activities. The major vehicle for supporting CBNRM will be through a five year institutional contract, which is currently in the process of being awarded. The main purpose of this activity will be to strengthen the institutional framework in which CBNRM programs are designed, implemented, monitored and evaluated.

#### 4.4.1 What is CBNRM?

CBNRM is an active process to appropriately manage natural resources, i.e. water, soil, plants and animals. Its defining characteristic is that it is based at the “community” or, more appropriately, the local level. It should not be misconstrued as “communal” or “community” NRM, although management of customary lands or the “commons” is one of several options of CBNRM. CBNRM developed out of the growing recognition of the importance of participation and the involvement in the management of those living closest to the natural resources. It complements government service, and does not act to replace it. In particular, since NRM is about the maintenance of ecological systems, there are times when a broader focus than the local level is required. For example, catchment conservation is a difficult task for a group of farmers or one community without the support of others. In this case, an important oversight function can be provided by government agencies (the state) or another broader body such as a private trust.

The critical element of CBNRM is its focus on rural resource users. In attempting to develop a closer linkage between people and resources, CBNRM efforts encourage sustainability. Participation is critical for CBNRM and this means that it needs to be inclusive, rather than exclusive. A wide variety of stakeholders in the “community” need to be integrated into the process. Natural resources are not used by only certain segments of the society, men or women, old or young, they are used by all, hence their management requires the involvement of all.

Participation covers a broad spectrum, from passive to self-mobilization. It is hoped that CBNRM efforts in Malawi will strive to be at the far end of the spectrum, in which a process is supported that would build local capacity, self-reliance and eventually lead to self-regulation and management of natural resources in which power, control and decision-making are all in the hands of the local people. USAID and other actors must commit themselves to a long-term process in which it remains flexible and adaptive, as there is no “blue-print” for the process.

#### 4.4.2 Implications for USAID

There are five areas for action in the field of CBNRM in the next five years: establishment and improvement of community-based organizations (CBOs); development and support of collaborative management (CM) initiatives; support to local-level CBNRM efforts of individuals and groups; development of authority systems (AS), especially at the local level; and organizational development (OD) to improve service providers’ capacity at various levels, government, NGOs and private sector. More details on each of these areas can be found below and in the Technical Report on CBNRM.

##### Community Based Organizations (CBOs) Established and Improved

Community Based Organizations (CBOs), are local level organizations with varying degrees of organization and capabilities. USAID can help CBOs improve their capacity where they exist and help establish them where do not. Because CBOs bring together the major users of natural resources, they can help design and implement programs to improve NRM. This also helps supplement government and NGO capacity, which is limited in Malawi. CBOs tend to be sustainable over the long-term because they operate at the local level, and tend to be formed to address specific and

identified needs. Once CBOs are functioning, the need for inputs from either NGOs or government is reduced.

Some CBOs already exist and where they do they should be supported before creating new institutions. They may need to be restructured or reorganized to accomplish the functions they are required to do. Developing CBOs and enhancing their capacity can be assisted by various service providers, who may require short-term technical assistance in: mobilizing communities to form CBOs that focus on conservation, NRM and CBNRM; and backstopping and coaching to the relevant government extension units who will follow up in more detail in the establishment of these CBOs and the implementation of specific resource management processes (Griffin, 1997a). The approach taken thus far by DNPW's extension department, in terms of allowing and encouraging communities to form their own style of CBO, should be commended, supported and others should take a similar approach. Because for many communities CBO will be new, there will be some need for awareness raising and explanation of options (or, when possible, visiting existing examples in the area), but should not be prescriptive (Griffin, 1997a).

### Collaborative Management (CM) initiatives developed and supported

Collaborative management (or CM), also known as co-management, joint management, or shared management, is about partnerships by which stakeholders, particularly local people, agree on sharing specific management roles, responsibilities and rights (i.e. benefits) for an area or set of resources. The partnership is usually formalized through an agreement which identifies: acceptable functions and uses for the area; management priorities and plans; processes for dealing with conflicts and negotiating collective decisions; procedures for enforcing decisions; and specific rules for monitoring, evaluating and reviewing the agreement (Borrini, 1996 and Griffin, 1996). Collaborative management operates along a continuum of varying levels of collaboration, from full control by a public agency to full control by other stakeholders. By enhancing partnerships between stakeholders, it leads to greater levels of responsibility and sharing of authority as opposed to alienating local people from natural resources and their management.

CM is a process which requires political will for devolution of power, before anything else really can develop. Once this will is shown, which it appears to be in Malawi, CM initiatives can start. Due to the importance of devolving management responsibility away from the public sector, government representatives have to be involved and able to modify their control over resources. In addition, for these public sector actors to be able to play their role in CM, it is likely that some of their basic operational costs might need to be funded in the short term, possibly through NPA, endowment, trust or other sources, to allow for activities to be carried out. Preferably, the funding will be channeled in the form of a trust which can continue on in perpetuity and provide small levels of assistance on a continuous basis. If available, a short term input of technical assistance and funding would also be helpful to see that in the next five years CM agreements have been made and are being supported. The Technical Report on CBNRM shows the basic steps and activities required when carrying out a CM process.

### Local Level CBNRM Efforts of Individuals and Groups Supported

Local level CBNRM efforts are critical because they develop from real demands by resource users to improve their livelihoods and to maintain the resource base which allows for that use. Moreover, support to local level initiatives gives a value-added effect to those efforts. Support to local level CBNRM efforts should be response to initiatives taken on the ground and to the demands of the rural resource users. Control and direction of the initiatives must be left in the hands of the local user. Once they have been initiated, these local level efforts will most likely require small levels of technical and financial assistance, which need to be made available to them in a relatively straightforward and timely manner.

There needs to be a balance in the level of support provided. It will be counterproductive, and negatively effect ownership of the process, to pump large amounts of human and financial resources into an initiative which has not developed much momentum of its own. The process of support will need to allow initiatives to grow at "realistic" levels that communities can support even when inputs are terminated (Griffin, 1997a). Another aspect of support is to work to better understand the needs and demands of rural resource users. The Mulanje Mountain Conservation Trust (MMCT) will conduct a study later in 1998 which will address these local level issues for the Mulanje area, but the findings will be useful for others working at the local level within the field of CBNRM.

#### Authority Systems (AS) Developed, Especially at Local Level

Authority systems are the ways in which management regimes exercise their management control over resources. They are comprised of norms and behaviors (e.g., rules) which govern and control use of resources and have the ability to exclude or restrict access (Bromely & Cernea, 1989; Griffin, 1998). Authority systems are the critical link which puts in place local institutional systems which give the sustainable backbone to CBNRM initiatives. Lake Malombe fisheries provides an example of an authority system, whereby local users have taken over the control and management of their resources. They have determined by-laws and regulations, about mesh sizes and harvesting procedures, and are providing enforcement as well, with the backing of the Fisheries Department.

The development of CBNRM Authority Systems is a long process which requires a local focus, participation, facilitation, transparency and patience. It develops at its own pace - either slower or faster depending upon the demands of the communities and on the responsiveness of the facilitators. Participation is a critical component of the process, but participation is more than conducting a variety of participatory methods (i.e. PRAs). Although PRA methods are used, these are only elements of an on-going dialogue. An even more process-oriented approach is required, taking place over a longer time horizon than either PRA or RRA traditionally would provide. The process also needs to be adaptive, developing new methods on the spot to fit the situation. While there are no "blue-prints" of what the process will look like, some general ingredients and steps are detailed in the Technical Report on CBNRM.

## Organizational Development (OD) to Improve Capacity

Organizational Development (OD) can help improve the capacity of government, NGOs and the private sector. If the capacity of these actors is improved, they can better act as service providers to CBNRM initiatives. Organizational development can take several forms. Additional staff, for example, can be directed to CBNRM efforts, as has already occurred with the DNPW switching management staff over to extension to assist with resource utilization programs. (The same should happen with Forestry to assist with co-management.) Those with greater potential to work in CBNRM must be selected and encouraged to do this work. In addition, in the future when these organizations are hiring new staff they have to be looking for a different set of criteria when selecting and training. For example, the resource harvesting program is seriously hindered by DNPW's inability to provide the required extension services and research and monitoring to be able to issue more quotas to CBOs and resource harvesters (DNPW, 1997b, p.6). By reviewing current organizational structures and operating procedures, DNPW and other agencies could more effectively meet the new policy objectives, which include promoting CBNRM.

Organizational development to develop service provider's capacity involves strategic change processes within the relevant organizations. Various studies should first be conducted, including stakeholder analyses and a review of institutional incentives and disincentives within the organization. This process can help these organizations to develop a clear vision about what services they can and should provide and how they achieve them most effectively. In addition, technical assistance to extension staff can be provided, with a focus on developing the skills needed to create devolution and self-regulation and management by communities.

### 4.4.3 COMPASS

Table 4.1 outlines how USAID's proposed COMPASS program could incorporate the five recommended areas for action.

Table 4.1

Existing COMPASS	Newly "Directed" COMPASS
R1: Capacity to administer effective CBNRM programs and technical services in place	This result is useful, especially the coordination aspect, but can be enhanced by organizational development to improve service providers capacity at various levels.
R2: Functional liaison, communication & information exchange among CBNRM efforts established	This result is useful, especially in terms of exchanges between local resource users.
R3: Community mobilization skills improved	This result should be focused at the local level. It should assist and be involved in field related activities with local people. It should also go beyond "mobilization" into the organizational realm. If the COMPASS project were to allocate percentages of input this result area should receive the majority of the inputs. Technical assistance is especially required to promote and support these activities. It is also in this area where there stands to be the greatest amount of partnerships and cost sharing and it is here where sustainability will be built into the system by the users.
R4: Policy and legislative basis for CBNRM established	This result is useful and assists with the enabling environment, although much of the work in this area has been initiated and is proceeding.
R5: Grants facility established	This result could be useful to assist with result area 3, to jump start activities, and with support of local level CBNRM efforts, if it is responsive to local initiatives and strives for sustainability in the way of trusts which are enduring. However, there are already various financing facilities in Malawi (which hence lowers the priority of this result) which are having difficulties disbursing funds and actually reaching the local level - so this too must be addressed.

## 4.5 Endowment Fund

### 4.5.1 Progress to Date

An endowment fund is planned for the purpose of providing a sustainable source of financing for critical natural resource requirements. At present, US\$10 million has been programmed in the fourth tranche of the NATURE program to establish the capital base of the fund. Also, the UNSO, within the context of the Convention to Combat Desertification (CCD), is committed to supporting the process and has allocated US\$30,000 under the National Desertification Fund (NDF) to assist the process of developing the fund.

To establish and oversee the fund, NATURE has assembled a Working Group forum, including a group coordinator. Initially, the process of designing the fund's framework for the allocation of proceeds, stating objectives, and developing the necessary financial and legal mechanisms was envisioned to take four years. A critical issue at present is the death of the fund coordinator, which has left the entire process in a virtual holding pattern. Nonetheless, there appears

to be strong interest in continuing the process of developing the fund, warranted by what is seen as the value of the fund as a vehicle for supporting critical NRM/environmental initiatives.

A minimum of six formal Working Group meetings have taken place during which numerous issues have been addressed and actions taken, planned or delegated to members of the group. Some key issues discussed and actions taken include:

- decision to focus entirely on NRM/environmental issues only;
- statement that community participation is essential in designing the opportunities created by the fund;
- need for strong legal framework to support a strong/stable relationship with government and scope for public review;
- incentives for the private sector to donate to the fund should be provided;
- registration of the fund through the Trustees Incorporation Act upon submission of a charter or constitution (trust deed);
- definition of the process to develop the fund, which will incorporate three broad steps: identifying needs and opportunities; outlining the vision and scope issues; and building a coalition of partners through participation;
- activation of the fund earlier than planned;
- need for the Working Group to control timing issues so as to avoid operational problems; and
- need to get a statement from the government on the fund; specifically, the working group has submitted a proposal to Treasury (on or about December 15, 1997) but has not yet received a response.

Additionally, the bulk of fund activities have been divided into three areas: a legal framework, the financial structure, and aspects of community participation. Three groups have been formed to address each area separately and a terms of reference for each group has been drafted. Other endowment funds are being assessed for their capacity to serve as models for the development of Malawi's fund. Other donors, notably the EU, who have expressed interest in developing similar funds are being considered regarding coordination/fund merging opportunities.

## 4.5.2 Implications for USAID

The development and use of an endowment fund are as relevant today as they were when the NATURE program was initially designed. There are several areas where USAID can help enhance the potential impact of the endowment fund. These include: definition of what the fund will support; linkage of fund support to an overall system or strategy; and administrative issues.

### Defining What the Fund Proceeds Will Support

Definition of what the fund will be used to support will first require identification of “gaps” in the system now being developed to devolve resource tenure and develop sustainable management skills. For instance, the fund should consider financing the operational costs of NGOs serving as liaisons between communities and decision-makers and providing grants to support the efforts of innovative individuals working at the local level. Further, the fund should explore support of activities that will generate off-farm income. However, it should avoid supporting efforts that result in a direct transfer of currency to increase welfare.

Other areas where the fund could focus include activities that currently are not self-supporting. For example, rampant loan default has left a large proportion of farmers—often among the best resourced—ineligible for credit. The fund should provide some type of support to these farmers that will “bridge” their enterprises into sustainable and more productive suppliers of income/employment/staple grain. The fund can also consider strategies for supporting the development of transportation services that will indirectly boost the market value and significance of natural resource-based products and contribute to the value a community places on managing and monitoring such resources. However, care should be taken to avoid initiatives that will result in expedient over-exploitation, especially by resource users who, having found incentive from an increase in market value, travel from other regions of Malawi to exploit such resources. The fund could also be used to reverse the trends in areas where resource degradation has compromised households’ ability to respond to environmental changes and adopt sustainable practices.

### Linking the Fund’s Support to an Overall System or Strategy

The fund can be used to support existing initiatives, such as proprietorships, product/market development and access, that are meaningfully linked to efforts to improve natural resource management. The fund’s support can also be tied to addressing the abundance of health problems and scarcity of fuels.

### Management and Administration Issues

USAID may want to consider an earlier release of money for the fund. It can also assess the possibility of combining with DANIDA and/or other donors in establishment of the fund, which could include cost sharing and ultimately result in less demands on the GOM. In addition, USAID could help to settle outstanding issues with MOF/Treasury regarding support and input. It can also assess the potential for investing some funds directly in Malawi (e.g., an NGO building complex, support of under-funded eco-tourism enterprises, etc.).

## 4.6 Performance-Based Budgeting Systems (PBBS)

### 4.6.1 Progress to Date

Under the NATURE program, PBBS is a pilot effort aimed at programming funds to reach individual capacities of ministries and departments. Its objective is to channel funds to support specific priority initiatives that call for outputs or targets that are in turn based on the objectives of NATURE. The overall goal is to tie resource allocation to performance by linking the budget and financial reporting system to improve transparency and accountability. Funds programmed through PBBS were initially envisaged to take place through a process coordinated by the Ministry of Economic Planning and Development (MEP&D) in concert with the Ministry of Finance (MOF).

The basic components of PBBS are: work plans (includes objectives, time-phasing, and performance indicators); expected outputs; and performance indicators (whether an output/target has been achieved). To ensure commitment on the GOM side, a system by which a letter of intent was issued. The content of the letter included information on: the list of approved projects (by department); the approved level of funding for each project; and a report on the performance of existing projects.

However, to date this pilot has fallen below expectations. Funds have been released in amounts below targets and/or the release of funds has been delayed. Furthermore the GOM has often created budgets incrementally (by simply increasing the previous year's allocation by some specified percentage) instead of basing budgets on objectives tied to policies.

### 4.6.2 Implications for USAID

The key issue regarding the future direction of the PBBS is whether it should merge with the GOM's Medium Term Expenditure Framework (MTEF). Initiated 1995, MTEF's seeks to create a new budgetary process that will facilitate transparency and greater credibility of the rationale for fund allocation, timing, and storage. Because of the overlap between MTEF and PBBS, development of a separate PBBS in parallel with the GOM's MTEF would be a duplication of efforts. While MTEF has foundered in the past, recent signs indicate the process may now be on a successful track.

Several budgetary problems experienced by GOM, which have been barriers to the PBBS, are being eliminated (entirely or at least in part) by the emerging MTEF. These include: budget deficit in excess of 12% of GDP; expenditure structures inconsistent with GOM's priorities; and expenditure budgets not linked to avail macroeconomic conditions (this has often resulted in budgetary shortfalls causing ministries to receive fewer funds than they were allocated).

In essence, MTEF is a system to generate better and more transparent information as the basis for allocating resources consistent with priorities. With the rationalization of funds, tradeoffs are more apparent. Furthermore, such a framework can support forward budgeting. Part of the process involves giving line ministries greater responsibilities for allocating funds to priority areas—so that lower priority areas are scaled back or eliminated.

The MTEF incorporates four essential components: 1) definition by each line ministry of potential fundable activities in line with their respective objectives and policies; 2) estimation of costs of each activity; 3.) establishment of criteria to prioritize activities; and 4.) imposition of (preliminary) budget constraint so that lower priority activities are dropped. Currency will be funneled through two channels: recurrent and project. Presently, criteria for prioritization are being developed.

There has been much recent progress on the MTEF to date. This includes: extension of the process to all ministries in preparation for the 1998/99 budget; use of the macroeconomic framework agreed upon with the IMF/World Bank to estimate available resources; development of logical frameworks by all line ministries indicating their goals, objective, expected outputs, and activities necessary to achieve the outputs and objectives; and operationalization of a computerized budget preparation program. In addition, the budget deficit has been reduced, although some areas are still underfunded. The GOM recognizes that further restructuring of expenditures is necessary to ensure that priority sectors receive sufficient funding to provide effective services.

USAID can play a significant role in supporting the MTEF process. For instance, it can collaborate with GOM to create a system that replaces the incremental process with an activity-based process. It can consider the use of incentives and sanctions to ensure currency is channeled to the desired location and released in a timely manner. It can help design the currency programming process to be as transparent as possible so that the tradeoffs of possible budgetary allocations are made explicit. It can also support GOM efforts to capture macroeconomic conditions in budget resource forecasts and work generally to assist the MOF to establish a greater degree of credibility in this area. This will require supporting the MOF's efforts to ensure that ministries receive all the funds allocated to them in the budget in a timely manner.

In addition, USAID can work with the MOF to establish criteria used to prioritize funding objectives. While it has not yet been determined whether donors will be asked to participate in this process, there is scope for suggesting that donors become involved. However, there are tradeoffs of donor participation. On the one hand, such involvement can facilitate the negotiation process (by front-loading and building in donor concerns/issues/interests), assist in coordination of donor activities, and save time that might otherwise be required to engage lengthy dialogue and negotiation. However, ownership is likely to be compromised if criteria development is seen as donor driven. One potential solution is to propose that donor input be integrated into the process in written form. USAID can suggest additions and modifications that will help to create prioritization criteria that will in turn assist the NATURE program in programming currency to GOM activities that are in line with NATURE's policies and objectives. It can also try to create opportunities to involve other donors, especially those with tangential interests and policies, in this process. USAID should try to work with the MOF in such a way that it is able to retain as much ownership as possible. It should also work to change the budget process to make the source secondary to use of funds (i.e., line ministry budgets then become priority-driven, not foreign currency-driven).

## 4.7 Institutional Development

### 4.7.1 Major Issues and Constraints

In Malawi, as in other developing countries, the preparation of a National Environmental Action Plan (NEAP) exposed a major weakness—the lack of an effective institutional framework for environmental coordination and natural resource management. In response, the Environmental Affairs Department (EAD) was established in 1995 within the Ministry of Research and Environmental Affairs (MOREA). (Please see the Technical Report for more detailed background on the history of environmental institutions in Malawi.) MOREA, which had been created in 1994, was operationally responsible for the coordination and management of environmental affairs. In 1997, however, MOREA was abolished and EAD was moved as a department to the Ministry of Forestry, Fisheries and Environmental Affairs (MOFFEA), where it is currently housed.

EAD is responsible for the coordination of all environment and NRM activities. The implementation of projects and programs is the purview of the technical ministries. However, the new national and sector policies are redefining the role of these institutions, away from their traditional emphasis on enforcement toward expanded outreach and facilitation of community-based initiatives.

Capacity in both venues is generally weak. Lack of training and resources, along with certain institutional structures and procedures that act as disincentives for pursuing an environmentally sustainable agenda, inhibit the effective operation of these institutions.

#### Lack of Qualified Staff

One of the most significant problems constraining EAD and the line agencies from developing into fully functioning and credible organizations has been their inability to attract and retain qualified personnel. A large percentage of EAD staff, for example, still need environment and natural resource management skills, despite some training that has been provided. While a number of short (2-3 days) workshops have been organized around special themes for EAD staff and focal points in the ministries, this short-term training has not focused on the operational needs of the individual officers.

In comparison, training of technical personnel in the line ministries has been largely neglected. (The exception is the training of 70 GOM officials and University faculty who have been trained in the use of Geographic Information Systems (GIS) and related technology under NATURE's MEMPC component.) In addition, the shift in roles from an enforcement to a community orientation will require additional skills in participatory development.

#### Lack of Resources

A shortage of resources, particularly at the field level, hampers operations. Budget levels are often inadequate, and those resources that have been allocated frequently are not delivered in a timely manner. This is particularly problematic at the field level. Field staff, such as Field and Forestry Assistants, are unable to carry out their duties effectively because they often have neither the fuel nor the vehicles necessary for them to visit and advise farmers.

The lack of resources also impacts the government's ability to attract and retain personnel. Low salaries imply that staff are inclined to pursue additional ventures that provide income, thus taking them away from their civil service duties. Similarly, staff are not replaced while in training, exacerbating the existing constraints on remaining personnel.

### Institutional Disincentives

The problem in attracting and retaining personnel also has been exacerbated by cumbersome bureaucratic procedures. Assignment of staff can be arbitrary, and staff are sometimes transferred to another post or division with little consideration for their areas of technical specialization. Similarly, the lack of transparency in criteria used for promotions or selection for training undermines morale. Several extension officers working in the same position for more than 8 years, for instance, had no knowledge when they might receive training (necessary for advancement) or a promotion or why they had not received them thus far.

Clear lines of authority, both within EAD and between EAD and the line agencies, have not been defined. There is a lack of job clarity which tends to engender low morale among staff. For example, short- and medium-term work plans for EAD, its divisions and the individual officers have not been developed. At the same time, the perpetual dearth of personnel has shifted additional work onto already over-extended officers, further damaging motivation.

The lack of capacity weakens credibility, as agencies are unable to properly respond to requests for their services. At the same time, the incentive structures within the civil service are biased against achievement of the newly-defined, community-oriented roles. For example, field staff in the Department of National Parks and Wildlife (DNPW) receive a substantial bonus (about equivalent to their salary) for spending more than 14 nights in the bush. The purpose of this bonus is to provide an incentive for enforcement officers to catch poachers. In practice, however, it sends several inappropriate signals. First, enforcement officers will have less of an incentive to catch poachers at the beginning of their 14-day field time, as success would force the officer to come back from the bush early and thus prevent them from receiving the bonus. In addition, extension and research officers get the impression their work is less important to the Department. Extension officers' work takes place in nearby villages, where they help facilitate communities' sustainable use of resources from the national parks and reserves. Consequently, they have little opportunity to receive the bonus.

### Organizational Structure

The positioning of EAD, as a coordinating department in a larger implementing ministry, faces several challenges. In practical terms, the bargaining power of EAD has been sharply reduced in terms of office accommodations, staff and other resources. In addition, management of the environmental impact assessment (EIA) process, which is provided for under the Environmental Management Act (EMA) and for which regulations have been introduced, could be compromised if EAD does not retain an identity separate from line ministries and other implementing agencies.

EAD's most important responsibility, that of coordination, is difficult, if not impossible, from its place as a lower-level department in an implementing ministry. To effectively coordinate technical ministries and development partners, EAD must have the requisite authority and independence to be

able to speak from at least an equal position. In addition, EAD's critical role in managing the EIA process is hampered by its low position in the bureaucratic hierarchy. In some cases, an EIA will lead to different and sometime conflicting conclusions about individual projects and activities. From time to time there will also be a need for an impartial arbiter. EAD, with advice from the Council, will be called upon to play this role, and must be able to speak with an authoritative voice, which may be difficult as a lower-level coordinating department in an implementing ministry. Further, since MOFFEA may be involved in a case of conflict between two or more parties, EAD as a department of the same Ministry may have problems playing an impartial role.

#### 4.7.2 Implications for USAID

USAID can play a critical role in strengthening institutional capacity to address natural resource management concerns. For instance, it can help clarify institutional roles, encourage reorganized structures, assess institutional disincentives and promote appropriate technical and management training.

##### Clarification of Institutional Roles, Organizational Structures and Incentive Systems

USAID can help reorient the civil service so that it is better situated to implement the new and revised policies. This will first require a clarification of institutional roles, as mentioned in Section 4.1.3. This should include characterization of missions for EAD and NRM agencies, prioritization of activities, definition of lines of authority, and development of job descriptions and work plans for all professional officers and divisions. In addition, the role of EAD in implementing activities needs to be reconsidered. Currently, EAD is implementing several projects, such as MEMP, Capacity 21, Hyacinth Control and the Environmental Management Project. This compromises EAD's coordination function and stretches EAD's capacity.

Once it is clear who is doing what, an assessment of the best organizational structures to support these roles should be undertaken. In particular, the placement of EAD should be reconsidered, so that it can operate from a position that is independent from and at least equal to the implementing ministries.

Strong linkages between EAD and the technical ministries need to be established. The network of environmental focal points established in 1995-96 is only partially functional. Focal points are designated contact people who are supposed to facilitate communication between EAD and the technical ministries. Feedback from the technical ministries provided by these focal points is crucial if EAD is to carry out its coordination responsibilities. However, most focal points are not yet operational.

The focal points, and staffing in general, have been subject to frequent staff changes. Staff are sometimes transferred to another post or division without consideration of their specialization or training. For instance, focal point officers who attended workshops designed to discuss environment and natural resource management and to establish working relationships with EAD were sometimes transferred, with no replacement appointed. This is not conducive to building an operational network.

Careful consideration also needs to be given to the institutional incentive and disincentive system that can encourage or discourage implementation of an environmentally oriented agenda. USAID may consider finance an assessment of this system. Because the organizational structure's incentive systems within the civil service were set up for a different purpose, it is important to reexamine them in order to determine which procedures support or hinder community-based natural resource management. These (dis)incentives are often buried in personnel procedures or criteria for advancement. The previously-cited example of the bonus system for wildlife field agents is one example. Another is the positioning of environmental focal points. Because they remain responsible to their technical ministries, it is likely that environmental matters will be a lower priority than their "regular" duties.

The resource requirements, for the focal points and other environmental agencies, should also be evaluated. Section 4.6 provides more information on how this might be achieved.

### Promotion of Technical and Management Training

USAID can also facilitate various kinds of training. In so doing, the recommendations in the 1995 environment and natural resource management training needs assessment should be considered. In addition, "on-the-job" training and the operational needs of officers should be emphasized. Training of personnel in the line ministries could be further supported. This can include technical education as well as training in participatory techniques that would facilitate community-based approaches.

In order to avoid overlapping or conflicting training methodologies, donor coordination should be encouraged. In particular, USAID should liaise and coordinate with other donors, such as UNDP and DANIDA, who are also involved in capacity building. Donors should collaborate to identify gaps and agree on a common training methodology. USAID and/or other donors also should consider financing staff to replace those officers in long-term training.

Finally, recruitment methodology and other personnel procedures need to be revisited, as the present system does not necessarily identify the best-qualified individuals for specific positions. (Note: the Technical Report on Institutional Development provides more detailed recommendations on training and other mechanisms to strengthen environmental institutions.)

## 5. Recommended Changes in Program Direction

### 5.1 Introduction

The Mission's current program is not an optimal allocation of resources towards meeting Strategic Objective 2. While current activities are useful, and in some cases, very well implemented by skilled and highly regarded staff, major gaps remain to be filled in order for the program to reflect the strategy.

Section 5.3 of this chapter recommends nine important changes in program direction. By themselves, these recommendations suggest "directions," but are not sufficient to actually reprogram resources. Section 5.4, "A Question of Balance," goes the next step in suggested criteria for allocating limited program dollars. Section 5.5, "Transition Strategies," addresses the equally important issue of shifting gears without losing the momentum of what is now being done. Again, current activities are useful and sometimes excellent, and the value of these investments should be secured during the transition.

### 5.2 Summary of Recommendations

The shaded box "Recommended Changes in Program Direction" summarizes the ten programmatic recommendations of the Assessment Team. Each recommendation is discussed in greater detail in Section 5.3 below.

### 5.3 Program Recommendations

**PROGRAM RECOMMENDATION 1:** Substantially increase emphasis on the "policy transmission belt," i.e., the steps by which national policy reforms are implemented, in ways which influence the incentives and behavior of local resource managers.

**The Opportunity to be Captured.** Over the last five years, Malawi has made dramatic progress in reforming national policies relating to natural resources management. Often, this progress has resulted directly from cooperation between the Government and USAID-sponsored policy assistance programs. To capitalize on these changes, however, much remains to be done to translate them into widespread, field-level improvements in how resources are managed.

**Rationale.** The term "policy transmission belt" refers to the set of complementary measures needed to bring about systematic, widespread changes in how local resource users manage the natural resources base. Neither the Government of Malawi nor the USAID program under SO2 demonstrates an adequate understanding of how important this "transmission belt" is to success.

### Recommended Changes in Program Focus

- Substantially increase emphasis on the “policy transmission belt,” through which national policy reforms are implemented in ways which influence the incentives and behavior of local resource managers.
- Substantially strengthen the hitherto under-emphasized “demand side” for local-level NRM initiatives, and for use of environmental information.
- Shift the balance of capacity building efforts “down and out”: down from the central to the district and local public sector; out from the public sector to the private economy.
- Increase relative program emphasis on NRM practices by smallholders on individually-managed lands, while retaining attention to communal management of common property resources.
- Establish and focus resources on three to five local “target zones” to test market-based approaches to smallholder natural resources management on individually-managed lands.
- Dramatically reduce the scope and coverage of the NPA to focus on true priority changes. Strongly consider using the NPA to leverage local policy and institutional changes in “exemption zones.”
- Build long-term, structural linkages with East and Southern African “sister institutions” to help transfer lessons from similar NRM experiences elsewhere in the region.
- Build targeted operational linkages with other USAID Strategic Objectives (especially SO1) and with other Government of Malawi and donor-supported programs relating to rural production.
- Determine whether to adopt a national approach or geographic focus based on three principal criteria: (a) long-term “Nexus”-type opportunities; (b) program implementation strategy, including the strategy for broader replication of successful results; and (c) assessment of how best to achieve a critical threshold of impact in test areas.

After thirty years of centralized and rigidly-controlled economic management, central government agencies still tend to view development as something that “government does.” The flood of donor money in Malawi has not done enough to counter this misimpression, often focussing on strengthening public sector capacity and on promoting supply-driven solutions for rural “beneficiaries.” Hence, the rationale for sustainable natural resources management needs to be made extremely clear:

Environment is a decentralized resource which government can neither manage nor control. Often, environmental outcomes are the by-product of non-environmental choices which people make in their day-to-day production and consumption decisions. In this changing, decentralized context, government has two principal roles: first, to set and enforce the “rules of the game”; second, to provide outreach and support which increase knowledge and awareness of better options for sustainable resource management.

In a market-driven economy, market incentives will have a dominant influence on whether or not resources are managed sustainably. The “set of complementary measures” needed includes: appropriate government policy, clear and transparent local signals, effective enforcement, fair adjudication, information and outreach, and adequate access to markets to make price and policy signals operational in influencing resource users’ behavior. Rural Malawi is changing rapidly, driven by population growth, urbanization and mushrooming urban-rural market linkages in the newly liberalized economy. To remain relevant, the “policy transmission belt” must make new policy declarations relevant to these emerging market incentives.

**Program Implications.** The bulk of current SO2 program dollars focus on national policy reform, agroforestry, national public sector institutional strengthening and environmental monitoring using tools, institutions and staff which work primarily at the national level.

The key program implication of this recommendation is to open funding windows to work at the district and local levels. To fill the “knowledge gap” at these levels, the Assessment Team recommends development of local exemption zones (see recommendation 5 below) to test alternative incentives and outreach approaches at the local level.

**PROGRAM RECOMMENDATION 2:** Substantially strengthen the hitherto under-emphasized “demand side” for local-level NRM initiatives, and for use of environmental information.

**The Opportunity to be Captured.** At present, SO2 is heavily supply-driven. The agroforestry program, while offering a number of useful approaches, starts with the “solution” (agroforestry) and looks for local situations in which it can be applied. The environmental monitoring program (MEMP) has a deeper demand problem: it generates data and information in the expectation that someone will find them useful. There is neither a clear demand nor even a clearly-defined set of end-users.

Rapid changes in urbanization, commerce and economic liberalization are generating demand for new markets, new services and new technical approaches. As overall population doubles, and urban population increases four- to five-fold, this new demand becomes critical to the adoption of improved natural resources management practices.

**Rationale.** The basic rationale for demand-driven approaches is that they “follow the market,” providing solutions to problems which resource managers perceive, and that they allocate limited resources towards maximum impact. There is a strong body of evidence, from two decades of Africa NRM experience, to suggest that the strongest adoption rates have been achieved when programs and technical assistance offers a flexible menu of options which allow localized solutions to differing local opportunities. This demand-driven approach has been at the heart of such successful efforts as the Zimbabwe CAMPFIRE program, the Niger Guessebodi and SIM programs, the Botswana NRMP experiments with resource-based enterprises, and the Mali CMDT project, among others.

There are several important dimensions to the under-emphasized demand side of NRM efforts in Malawi:

- First, Bunderson and Hayes<sup>1</sup> report on recent WSU and EU studies indicating that the principal farmer motivation for adopting improved NRM practices was either to reduce cash costs or to increase the production and sale of cash crops. Increasing subsistence production was not found to be a strong motivator of farmer behavior. In short, these findings—which are typical of those throughout Africa—are that there is strong farmer demand for increasing cash income. Janice Seymour<sup>2</sup>, from her World Bank sponsored studies, provides similar feedback: the rapid urbanization of

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<sup>1</sup> Interview with Trent Bunderson and Ian Hayes, April, 1998.

<sup>2</sup> Interview with Janice Seymour, April 8, 1998.

the post-Banda years is fueling an “explosion” of urban-rural trade in agricultural and agriculturally-based commodities, as farmers leverage new opportunities to increase cash income.

- Second, several observers have noted that the rapid growth of smallholder tobacco production over the last seven years is much more an indicator of demand for cash income than of desire to produce tobacco, per se. Now that overall urban-rural trade has been liberalized, there is a very large potential demand for increasing non-tobacco cash crop production. Such cash crops broaden the range of income-producing outputs beyond tobacco, and provide stronger and more sustainable resource management incentives than tobacco which, at best, is not an “environmentally-friendly” crop.
- Third, interviews at the District and local levels, and with Glyvyns Chinkhuntha—the “farmer-entrepreneur” member of the assessment team—also suggest that the weakness of demand-side networks is a major obstacle to non-tobacco cash-crop production. Traditional extension services have been ineffectual, lacking skills, motivation and vision. Many small producers have a strong desire to produce marketable commodities, and may be willing to master NRM techniques to increase and sustain output. However, most lack market contacts and the know-how to manage the logistics of sustained market production. The recent expansion of burley tobacco acreage is itself testimony to the impact of strong, organized marketing systems. These findings, once again, are consistent with the experience elsewhere in Africa: that when producers are linked to strong market demand, they are both more willing and better able to master new techniques to increase and sustain supply.

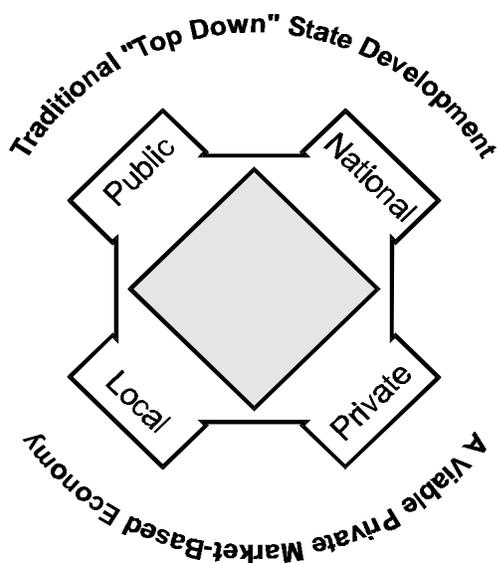
**Program Implications.** The current extension system is an important weak link in the “policy transmission belt.” Rural producers respond to policy changes through market-based incentives. When there are significant hurdles to market activity, even good policy changes may have little or no visible effect. Typically, secondary enabling conditions, such as credit, roads and marketing networks take on greater importance after policy change has occurred. Sound policies are necessary but not sufficient, providing the right to do new things, but not necessarily the means. Outside the tobacco sector, new and innovative extension, outreach and marketing networks will be key to leveraging market growth and producer demand for cash income, and thereby replicating the tobacco success for other cash crops. The future of successful on-farm natural resources management<sup>3</sup> in Malawi rests squarely on developing and influencing the growth of these market linkages.

The broader program implication is that SO2, particularly as it undertakes the forthcoming CBNRM program, should establish analytical and programmatic procedures to make SO2 resource allocations “opportunity-driven” rather than supply-driven, emphasizing program designs which identify demand and can provide a flexible “menu” of solutions to meet it, rather than programs which fund solutions in search of problem.

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<sup>3</sup> Indirectly, the potential for preserving the commons and reserves is also tied to this effort. Insofar as commercial production allows farmers to purchase and apply external inputs, the tremendous built-in pressure to extensify production is reduced, as is the pressure on land which is not yet in the farming system.

PROGRAM RECOMMENDATION 3: Shift the balance of capacity building efforts “down and out”: down from the central to the district and local public sector; out from the public sector to the private economy.



transition, they note, is to strengthen government capacity to foster local and private initiative as well.

The assessment team believes that this critical task will not be achieved by focussing simply on national capacity building. Until local and private sector capacity is sufficient to help make central government’s new role as “facilitator” a reality (i.e. there must be local and private initiative to facilitate), it will be very difficult to build the right capacity for the right purposes. During this historical transition to a more liberalized economy and society, the team believes there is both a major need and a major opportunity to redress the imbalance between national, local, public and private capacity building.

**Rationale.** The rationale for this shift in emphasis is fairly straightforward. A balanced, market-led economy requires a mix of public, private, national and local initiative. Funding has historically been concentrated at the public and national ends of the spectrum. Meanwhile, for similar historical reasons, local and private capacity—and consequent initiative—are weaker in Malawi than in even most poor African nations. The principal goal of this recommendation is to achieve a better balance in resource allocation “downward” and “outward.”

**Program Implications.** The implications of this recommendation are essentially the same as those of program recommendations 1 and 2: increased funding for district and local level public capacity; enhancement of local and private institutional intermediaries in the “policy transmission belt”; and greater emphasis on market access and on establishment of secondary enabling conditions which can generate incentives for improved natural resources management.

**PROGRAM RECOMMENDATION 4:** Increase relative program emphasis on NRM practices by smallholders on individually-managed lands, while retaining attention to communal management of common property resources.

**The Opportunity to be Captured.** The term “Community-Based Natural Resources Management” (CBNRM) refers to natural resources management at the local (community) level. It does not necessarily mean resource management by communities, or to communal management of resources. The majority of resource management decisions in Malawi (which also affect the majority of natural resources and of surface area—both land and water) are made by households and individuals acting as individual production units. To capture the full potential for improved NRM in Malawi, there is an urgent need to fill the relative void in attention to NRM practices by smallholders on individually-managed lands. The greatest areas of need involve the natural resources-agriculture linkages, particularly in non-tobacco growing areas.

**Rationale.** There has been a great deal of analysis, over the past decade, of why CBNRM has tended to focus on communal approaches at the expense of approaches requiring household or individual initiative. To some extent, environmentalists (who implement most CBNRM programs) tend to view communal action as itself a noble end; to some extent, environmental projects tend to be funded from offices which are less concerned about economic and market linkages, and hence less sensitive to the incentives and potential of households acting, in their own self-interest, to protect and manage resources; finally, there has been a strong tendency for environmental concerns to focus on common property resources, and in particular on parks and protected areas, which are relatively better suited to collective rather than individual action. Whatever the reasons, the imbalance between programs aimed at collective vs. individual action persists in donor supported programs throughout Africa. However, the greatest successes—and those which have been the most widely replicated—have successfully tapped the vast reservoir of initiative which the search for private self-interest unleashes.

Every farmer manages his or her resources throughout the year. The quality of this management directly determines whether the resources are degraded, maintained or enhanced over time. These resources are the stock of natural capital on which rural production systems depend. Because soil depletion and decreasing yields also force producers to extensify, the quality of on-farm resource management also determines, in the long-run, the fate of marginal lands, entire watersheds (moving up the hillsides unleashes strong upstream and downstream linkages) and of common property, parks and protected areas.

**Program Implications.** The key implication is clear from the recommendation itself: to increase relative program emphasis on NRM practices by smallholders on individually-managed lands, while retaining attention to communal management of common property resources. In operational terms, this ties directly to the program implications for recommendation 2, which would place greater emphasis on the developing market access and marketing networks for smallholders.

**PROGRAM RECOMMENDATION 5:** Establish, and focus resources on, three to five local “target zones” to test market-based approaches to smallholder natural resource management on individually-managed lands.

**The Opportunity to be Captured.** This recommendation flows from the first four. A relative shift in program emphasis towards demand-driven approaches for local, private and individually - managed resources creates a demand for viable models which have not yet been developed. If the effort is truly to be demand-driven, it must build on what is observed to work. Local “target zones” have been used very successfully in a number of countries. The learning from these zones can then be used to refine approaches, and eventually to spur further policy changes or other improvements in the “policy transmission belt.”

**Rationale.** The issue is to discover, through local level experimentation and learning, where the obstacles lie in the policy transmission belt. For example, liberalization of cereals markets in Mali in the 1980s<sup>4</sup> initially failed to capture the full potential market price incentives in some zones. Further analysis revealed that “secondary enabling conditions” were the new, operational obstacles to a supply response. These included credit, access to inputs, storage, transportation and infrastructure, market intermediaries, and, in some cases, technical know-how. In the SADC region, the opening of markets and trade regimes proved to be only one step in eliciting a widespread supply response. A 1997 study by Brian DaSilva of USAID’s regional office in Kenya showed that a bag of grain going to a cross-border market still had to pass through seventy checkpoints, each of which had special requirements (such as size of bag) and each of which created further opportunities for “non-tariff barriers” which enriched the checkpoint agents, while raising marketing costs. Very similar studies in West Africa found very similar results with respect to the impact of the dramatic 1994 devaluation of the CFA franc. The devaluation itself was a necessary policy measure, but was not sufficient without lifting secondary obstacles.

Experience in implementing other NRM programs also suggests that it is difficult to identify the principal obstacles to local level behavior change without systematic efforts at field learning. The remarkable success of the burley tobacco policy reform is, in this respect, potentially misleading with respect to broader NRM initiatives. From previous experience, NRM successes typically require longer lead times, more diverse local options (both market and technological) and a more intensive initial effort for technical support.

**Program Implications.** Full-scale design of “target zone” experimentation is beyond the scope of this assessment. However, the assessment team strongly believes that alternatives to the current extension system should be tested. One such alternative—“Farmer Marketing Networks”—offers approaches which meet important economic, institutional and environmental criteria. It is described in the box in section 2.4 and figure 2.1.

**PROGRAM RECOMMENDATION 6:** Dramatically reduce the scope and coverage of the NPA to focus on true priority changes. Strongly consider using the NPA to leverage local policy and institutional changes in “target zones.”

**The Opportunity to be Captured.** The assessment team believes there is a significant opportunity to simplify the NPA agreement between USAID and the GOM, by reducing the number

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<sup>4</sup> jointly supported by the Government of Mali, USAID and the World Bank, and involving a gradual lifting of government-set cereals prices in favor of market prices, with the abolition, over time, of cereals marketing boards.

of conditionalities, and focussing them on major steps needed to accomplish the policy reform program.

**The Rationale.** The current NPA agreement bundles 56 discrete steps into one conditionality. This creates a number of significant problems:

- First, an extraordinary effort is required to monitor the 56 steps necessary for GOM to meet the conditionality. This effort is unnecessarily burdensome;
- Second, the mathematical odds are very high that one or more steps will not be accomplished. For example, even if there is a 95% chance that each institution will meet each of the steps for which it is responsible, this translates to only a 5.6% chance that every institution will meet all of the steps for which it is responsible ( $0.95$  raised to the 56th power = 0.056).
- Finally, both GOM and USAID may be forced into one of two unattractive compromises: either to delay a given tranche until all subsets are completed, even when “substantial completion” has been accomplished to the satisfaction of all parties; or to violate the letter of the conditionality agreement by releasing a tranche payment when both parties are satisfied that “substantial completion” has been achieved.

**Program Implications.** The NPA can be simplified by focusing on three to four major conditionalities. Ideally, and in keeping with the practice of other major NPA programs, each conditionality should be attached to a discrete tranche payment. All other “substeps” should be made into “covenants,” which are part of the formal agreement between the two governments, but not legal conditionalities for release of payments. The assessment team also believes that the next phase of the NPA should tie at least one set of conditionalities to the creation of target zones, to Government flexibility in permitting policy and field experimentation in those zones, and, ultimately, to GOM willingness to broaden and apply the lessons learned.

**PROGRAM RECOMMENDATION 7:** Build long-term, structural linkages with East and Southern African “sister institutions” to help transfer lessons from similar NRM experiences elsewhere in the region.

**The Opportunity to be Captured.** Many of Malawi’s neighbors in East and Southern Africa have had significantly longer and deeper experience in local level NRM, both on common property resources and privately managed lands. Finally, there are relatively strong research and implementation institutions in the region who can provide institutional lessons and models which can accelerate Malawi’s movement down the same path they have recently traveled.

**The Rationale.** Structured partnerships with such regional institutions as the University of Zimbabwe and the Center for Applied Social Sciences allow the kind of long-term relationships which have proved effective in capacity building and institutional motivation around the world. Regional institutions often have lessons to offer which are more directly relevant than those brought by expatriate consultants. Proximity and low regional labor costs also significantly improve the cost-effectiveness of such relationships relative to those with European or US-based institutions. Proximity

also allows Malawian specialists (from Government, NGOs, academia) to visit, share experiences with and possibly even intern in “sister institutions.” It also allows “farmer-to-farmer visits” and other exchanges between local resource managers. All evidence suggests that such visits can have a dramatic impact on adoption by key smallholders, who themselves become the nucleus for further replication in country.

Finally, the rationale for regional institutional partnerships is strengthened by its consistency with the long-term trends towards regional economic and market integration, particularly in the SADC countries. For example, many of the most promising NRM initiatives in rural Botswana and Zimbabwe are driven by cross-border demand for commodities in newly-opened regional markets. By far, the strongest driver for CBNRM in the commons, and around parks and protected areas, is the regional ecotourism market. In this instance, regional partnerships do even more than to simply transfer lessons learned from similar environments. They also help integrate Malawi into the actual network of tourists, tour operators, facility managers and investors which will be essential for developing Malawi’s ecotourism potential.

**Program Implications.** SO2 should facilitate key regional partnerships at least at the following levels: central government, research institutions, local government, and field practitioners. Low levels of long-term funding, coupled with government funding commitments, should be set aside.

**PROGRAM RECOMMENDATION 8:** Build targeted operational linkages with other USAID Strategic Objectives (especially SO1) and with other Government of Malawi and donor supported programs relating to rural production.

**The Opportunity to be Captured.** The SO2 program would benefit from increased operational linkages with efforts in related sectors. This is true for USAID programs in agriculture and population, as well as for GOM/other donor programs in the same sectors. The relative weakness of these important linkages can be attributed to a number of factors: the natural tendency for programs to segregate themselves into sectoral components; the fact that the current SO2 program evolved from a collection of activities which, when initiated, were not part of an integrated Results Framework; and the relative lack of current SO2 emphasis on the agricultural sustainability side of NRM. The key challenge, and the opportunity to be captured, however, is to create a limited number of key operational links and not just conceptual ones.

**The Rationale.** Looking more deeply into recommended changes in program direction, there is a need to increase emphasis on sustainable management of agricultural lands (outside tobacco production), and to emphasize the “demand side” for NRM approaches, both with respect to producer technologies and to information technologies. In both sets of areas, we believe it would be a mistake for SO2 to simply extend its activities in ways which overlap with what other actors are already doing. Two key examples stand out:

- Our analysis suggests that the ability to market agricultural crops is an essential precondition for farmers to make resource-sustaining investments on their land, by providing the incentives for better management, coupled with the means to finance investments (including the purchase of inputs). There is substantial evidence that farmers have a strong desire to increase cash income. Finally, by all indications,

market opportunities are growing fast, and will rise very dramatically as the demographic transformation runs its course. However, it is outside of SO2's mandate to independently build agricultural extension and marketing systems even if such systems are essential to its success.

- SO1 has a need for monitoring information of the type which MEMP was designed to provide. However, SO1 leadership does not feel MEMP is focused on the agricultural information that it needs. Hence, SO1 is forced to consider whether to establish its own monitoring capability. This raises some fundamental concerns: SO1's needs are limited, and would not justify creation of a stand alone capacity, particularly given the high “overhead” costs of information technologies; MEMP itself is an underutilized resource, partially because there is not yet a very clear definition of the “demand side” (i.e. of who will use the information and for what purpose); and, if we believe that information provision should and can be sustainable when project funding is complete, it stretches credulity to suggest that Malawi can operate two simultaneous information systems in the long run.

**Program Implications.** The team recommends (as documented elsewhere in the report) that USAID give serious consideration to housing MEMP in a research institution, based in Bunda, which can operate as a commercial entity which produces information for the public sector. In discussions with SO1 leadership, such an institution could not only serve the monitoring needs of SO1 and SO2, but could also eventually be a provider of FEWS (Famine Early Warning Systems) information. There is preliminary evidence that other donors could also be clients for similar information. The World Bank appears to be enthusiastic about discussing a restructuring of the information systems in ways which would help make it more sustainable, and more responsive to a broader range of needs.

**PROGRAM RECOMMENDATION 9:** Determine whether to adopt a national approach or geographic focus based on three principal criteria: (a) long-term “Nexus”-type opportunities; (b) program implementation strategy, including the strategy for broader replication of successful results; and (c) assessment of how best to achieve a critical threshold of impact in test areas.

**The Opportunity to be Captured.** There is significant opportunity to achieve results more effectively through a greater focus of effort and resources. There are many options that might be considered, including a national emphasis, geographical focus, sector-based strategy (e.g., forestry, water, soil) or some mixture. It is important to note, however, that the focus can and will vary by activity and evolve over time.

**The Rationale.** Some SO activities require a national concentration while others would achieve results more effectively using a site-specific approach. For example, environmental monitoring to provide broad-based information on environment (e.g., for tracking the NEAP) necessitates a national focus. However, if monitoring is used as a tool to understand the factors contributing to natural resource use and management, a reduced geographic scope makes sense. Some activities, such as policy reform, should retain their national focus. Other activities, such as policy implementation, CBNRM or agroforestry, may produce better results for sustainable natural resource management in Malawi through a more site-specific approach.

When deciding which approach is appropriate for a certain activity, one must ask whether this focus is a useful way of achieving the SO. This is different than asking what impact the activity can have on the site. To further explain this distinction, take the idea of concentrating effort in a particular district. The question is not what impact the program will have on that district, but what impact will occur, by focusing on the district, for the overall strategic objective (e.g., lessons learned in resource management in Malawi).

Constraints on available financial and human resources imply that, for certain activities, a greater concentration of resources can enhance the impact of the SO2 program. For these activities, a site-specific approach could help in several important ways. First, it would make the program more manageable. The current national-level effort across-the-board makes it difficult to give adequate time and energy to various components of the SO2 program. Second, by concentrating in smaller geographic areas, it becomes easier to identify and address obstacles to NRM more quickly, and thus achieve results faster. Third, concentrating on particular sites makes it easier to recognize and then capture the many inter-sectoral and cross-program linkages. Fourth, site-specific efforts could facilitate building of partnerships. Right now, the broad scope of the SO2 program means that coordination tends to be ad hoc. Given the extensive scope of operations, it has been difficult to gain detailed information about all related donor, government and NGO programs, evaluate their effectiveness, and systematically identify ways these related efforts could help also promote SO2 objectives. A more concentrated focus could help USAID identify, build and nurture partnerships more systematically, while targeting areas of greatest need and the areas of highest potential for success (see graphic).

The choice between national and site-specific or other approaches will likely evolve over time. For instance, the initial stages of policy reform, by their nature, will be nationally focused. As reforms progress, however, the effort will shift to implementation, which in turn may benefit from a site-specific tactic.

Once a decision is made to reduce the scope of an activity, the next question is: where? Determining the right place to start should be based not on what impact one can have in the region but on how the impacts that will occur help achieve the SO. In other words, a regional or site-specific focus should serve as an entry point into something larger.



To help determine where one should work, there are several criteria one can use. The analytic criteria one uses, and the weights given to each, is critical for determining what focus is best suited to achieving results. Some criteria suggest focusing on areas with great need, including: (1) issue of environmental importance, as identified in the NEAP; (2) place where other donors are not involved; and (3) Government priority. Other factors suggest concentrating on areas where the potential for impact is greatest. These include: (1) USAID comparative advantage; (2) complementary donor activities; (3) ability to build on synergies with other USAID activities; (4) ability to capitalize on inter-sectoral linkages; (5) results/impacts likely within 4-5 years. Ideally, the relative weighting of these (and other) criteria should be decided jointly by USAID and its partners.

The box below goes through the type of analysis and criteria one should use for deciding which area(s) to focus on.

### Determining Location of Site-Specific Concentration

Once the appropriateness of a site-specific approach has been determined, numerous factors should be considered. These include:

- Appropriateness and clarification of goals—The results to be achieved should be clearly defined. As mentioned above, the selection of a region should be based on achieving results toward the SO, not for an impact in the area itself. This distinction must be articulated explicitly in order to guide project design and facilitate effective partnerships. In particular, USAID/Malawi must be very clear on its own objectives and, where these objectives differ from those of its partners, understand whether and how certain activities for achieving one goal might impact the accomplishment of another.
- The size of the area—The size of the sites should be manageable, so that financial and human resources can be used effectively. If they are spread out across too broad an area, intensification of effort becomes more difficult.
- “Representativeness”—One reason to concentrate effort is, ultimately, to replicate lessons learned and successful interventions in other areas. Thus, USAID/Malawi must examine how representative a region is and whether lessons learned there can be easily transferred to other locations. This may mean that there should be more than one site or region for particular activities. This factor is particularly vital in the siting of “target zones,” as the potential for replication and dispersion of innovations may be greater if project sites are scattered.
- Nexus-type linkages—Greater concentration of effort and resources can encourage integrated, cross-sectoral analysis and solution of problems. In so doing, it can facilitate linkages, with USAID and other donor programs as well as with Government initiatives, and thus leverage resources more effectively. Dynamic linkages within a region, such as population growth and urbanization, should be examined so that these opportunities can be exploited. For instance, rapid rates of urbanization and population growth, combined with the need to have access to markets and the opportunity to capture increasing trade linkages within SADC, indicate that urban areas should be included in USAID’s NRM activities.
- Opportunities for partnerships—A quick survey of ongoing activities in the region can help identify potential partners. This would avoid duplication of effort and help focus on areas with a greater enabling environment. For instance, many NGOs, such as Wildlife Society of Malawi (WSM), have activities in the middle Shire region. USAID could build on these efforts, simultaneously strengthening the NGOs and leveraging resources. However, as mentioned above, the design of programs must take into account different goals of partners. In so doing, it can help clarify whether the limited capacity of the partner organization will be overwhelmed by additional programs and prevent a situation where it does nothing well.
- Economic opportunities—A desire for cash is the main force affecting farmers’ and urban dwellers’ decisions. This incentive has driven both urban-rural migration and increased tobacco production. Given this, the Mission should explore concentrating in areas of significant tobacco production. Because tobacco growers have a source of income, they may be better able to afford to undertake innovation. Consequently, this approach takes advantage of enabling conditions and is more likely to produce results. Furthermore, tobacco production in Malawi has been degrading the landscape. Indeed, measuring this degradation was, initially, the main goal of the MEMP program. By concentrating on tobacco production, USAID/Malawi would also be focusing on an area of great need. Clark University has produced a series of maps showing areas with greatest tobacco production. These could be overlaid with other maps showing areas of greatest degradation in order to assist in finding those areas where effort should be concentrated.
- Level of desperation—Experience across Africa has shown that the best potential for “take off” occurs where situations are most desperate. Frequently, because no other alternatives are available, innovation takes place when a community’s back is “against the wall.”
- Existing programs—Decisions regarding focus are easier for new programs than existing ones. USAID/Malawi should make a conscious decision about whether a shift in the SO2 program’s locational focus will mean abandoning some ongoing work entirely and/or expanding available resources so that the new sites are additional.

**Program Implications.** The team recommends that USAID first explore which SO activities require concentration. For those activities that require a site-specific approach, USAID/Malawi should focus its resources on those areas where there is not only a great need, but also an enabling environment that will improve the chance for success. If one concentrated only on need, other key factors, such as training, credit, markets and the like, might be missing and thus hinder the

achievement of results. At the same time, experience has shown that the best opportunities for innovation tend to occur where there is great need and situations are desperate.

To achieve this, SO1 and SO2 activities, such as MAFE and the CBNRM program, should be situated in the same localities. Ideally, these should also operate in the same areas as key related donor programs, such as PROSCARP, MASAF, and UNDP's forthcoming participatory assessment planning for sustainable livelihoods (PAPSL) program. In addition, results shared between SO1 and SO2 should be explicitly defined and then jointly funded, thus increasing the connection between the two.

At the same time, however, certain aspects of the SO2 program, such as a policy reform, should be kept at the national-level. As mentioned in recommendation 5, USAID should use "target zones" to test approaches and refine the "policy transmission belt." To enhance their ability to serve as "test markets," these zones should be scattered and not restricted to a particular geographic area.

Finally, it is crucial that USAID work with its partners to identify and clarify those activities that should be refocused in order to achieve the overall strategic objective. The Mission should then, with its partners, identify specific localities, using a clearly defined criteria and weighting system.

## 5.4 A Question of Balance

Preceding sections of this chapter have recommended basic changes in program direction. This section attempts to do two things:

- suggest key goals and principles for new program directions
- move a step closer to making the recommended strategy implementable

Many of the issues raised in the program recommendations will require further learning and testing, as prerequisites for finalizing elements of the strategy. At this stage in program development, it is more important to set forth the parameters than to pre-judge all of the specifics.

### 5.4.1 Balancing Goals

As detailed in the opening sections of this report, Malawi is entering a period of unprecedented change, with demographics as the engine, and political and economic liberalization as the yet uncharted destinations. Most of what happens to the environment, for good or for bad, will depend on how these intertwined trends play out. Since many of the larger trends lie outside the manageable interest of USAID/Malawi (and certainly of SO2), we need to ask what SO2 should do given that these trends exist. Trying to simply "improve the present" can be a very costly proposition<sup>5</sup> when the underlying trends militate against the changes being promoted. We propose that three goals are important in the strategic redirection of SO2 programs:

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<sup>5</sup> particularly in terms of "bang for the buck"

Using public resources to leverage larger trends. Even if programs are successful, it will take a decade before they are ready to reach large numbers of people. The greatest environmental impact will come from understanding the economic choices that growing numbers of people are likely to face, and from having a clear sense of what the judicious use of public resources can do to improve their environmental outcomes. In making program choices, one of the most difficult challenges the public sector faces is knowing when to resist the urge to fix what's wrong: building capacity because it is weak; increasing production because it is low; protecting resources because they are threatened. The key policy question becomes whether "fixing what's wrong" is the best use of limited resources when the goal is lasting impact.

Defining sustainability as "system goal" rather than an "activity goal." "Sustainability" is a relatively new term, becoming the common currency of the merchants of environment in the 1970s and 1980s. The old term, more the currency of macroeconomists than environmentalists, was "self-sustaining," which is a much more dynamic concept. It has to do with the recurrence of favorable outcomes in the normal operation of the economic, social and political system. Often, intervention without regard to the larger trends and incentives — "development through projects"—has left little lasting impact on human and ecosystem welfare, and even less on recurrent, system-wide tendencies to generate future poverty and resource degradation.

Sustainability and impact are linked. Impact depends on widespread adoption, and better NRM management will only be widely adopted if it results from the "normal operation" of the economic, political and social system. Conversely, unless improved practices are widespread and routine, the environment will not be sustainable.

A forest may be sustained through exceptional effort, but is not sustainable until the system no longer tends to degrade it. The system itself is not self-sustaining until it tends to self-correct the imbalances which undercut welfare and growth.

Expanding the definition of "capacity building" to include "opportunity building." Part of the capacity problem is the shortage of knowledge, technologies and skills. However, an equally important part is the lack of opportunity to apply capacity which does exist, or to develop and use new capacity. For over a decade, African rural organizations have stressed that they would rather have marketing networks and rational pricing policies than technical assistance. Particularly in the private sector, there is a logical sequence to capacity building: expanding opportunity first provides valuable feedback on where to focus other capacity building efforts to "fill the gaps," and therefore provides a more efficient use of limited public resources.

#### 5.4.2 Balancing Principles

As SO2's very successful NRM policy reform program demonstrates, NRM programs do not exist in isolation from the rest of the economy. The same populations who are asked to improve resource management practices are also sent policy and technical assistance messages with respect to agriculture, marketing, enterprise development, credit, democracy and health delivery systems, to name but a few. While specific messages may differ, the basic policy signals must be consistent for the system as a whole to function successfully. If NRM programs are to remain relevant to the

overall policy directions which Malawi is promoting, we believe three principles are essential program design criteria:

**Market orientation.** The “nexus” trends indicate that markets have a vastly increased role to play, both because urban demand will grow, and because rural producers need cash income to finance rural investments. Conversely, if the majority of rural production remains largely subsistence production, the potential for ecosystem stabilization is greatly diminished. At the most obvious level, NRM programs can seek, and are seeking, to capitalize on new market-driven opportunities for resource sustaining investment. But because resource management programs are such an important part of public sector presence in rural areas, it is equally important that the organizational systems, incentives and property rights approaches in CBNRM projects be consistent with the development of a market-based economy built on the initiative of private, economically viable decision-making units.

**Consistency with new directions in governance.** Many observers, notably including Dr. Graca Machel of Mozambique<sup>6</sup>, have noted that NRM programs have been at the cutting edge of local governance in Africa, and that good local governance is the critical piece of the puzzle in giving ballot box democracy meaningful definition in peoples’ daily lives. The burden of CBNRM programs is that we are often called upon to be the key actors in fields in which we are also amateurs: environmental professionals (whether government, NGO, technical assistance or donor) who are required to make economics and governance choices are not always professionally equipped to know what constitutes sound economics or governance policy.

The intersecting issues of land tenure, chieftancy, community organization and democratic principles provide a case in point. At the Victoria Falls Regional CBNRM Conference in August 1997, the Traditional Chiefs’ Declaration asserted that Chiefs had ownership and allocation rights over all land, saying they would exercise these rights, as always, in the best interests of the people. Whatever the merits of the Chiefs’ assertion, the issue is that CBNRM programs should not be the ones to decide so fundamental a governance issue at the local level, although in practice, they often are by default. The hallmark of successful local level NRM initiatives, including Campfire, Gusselbodi and others, is a sound policy foundation which still makes policy sense if replicated nation-wide.

**Responsiveness to local demand.** While the policy signals in CBNRM programs must be consistent with sound national policy, the specific approaches promoted need instead to be flexible, and diverse enough to respond to locally-specific demand and opportunities. There is no single, “blockbuster” NRM practice which will make all local environments more sustainable, if for no other reason but that adoption of the same solution will not make economic sense in all situations. In program terms, this implies that the CBNRM program needs to:

- offer a menu of viable options from which local populations can choose;

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<sup>6</sup> In a keynote address at the Victoria Falls Regional CBNRM Conference in August, 1997.

- have an on-going mechanism for learning what is most attractive to local resource managers, and for adapting the “menu” in response;
- place strong emphasis on assessing the financial attractiveness of CBNRM measures to potential adopters. CBNRM projects throughout Africa have discovered, in the words of Professor Marshall Murphree, that “cash income is the best extension agent,” and therefore the best indicator of potential for replication and impact;
- allow for a variety of institutional mechanisms through which approaches can be implemented, whether “communities,” local organizations, producer groups, marketing networks, private enterprises or household production units.

#### 5.4.3 Balancing resource allocation

The current SO2 portfolio is a mix of inherited and new elements, some of which preceded formal establishment of the strategic objective under which they operate. It is easier to assert that each of the elements is consistent with the SO, than it is to establish that the overall portfolio represents the best mix for meeting the SO. The program mix is currently dominated by NPA for policy reform and PA oriented to environmental monitoring. Field activities are focused on agroforestry extension (see graph).

Incorporating the elements already discussed into a strategic view of the SO2 program means that the current mix of activities may not fit. Yet this is not to suggest that restructuring must only secure the most optimal scenario, throwing out ongoing work and starting anew. Nor does it suggest that the changes are going to happen quickly. Rather, it suggests that, by “keeping our eyes on the prize,” that is, evaluating everything against the results we need to achieve for the SO, a relative shift in emphasis must occur. This emphasis must incorporate the fact that Malawi is a dynamic target that is continually evolving. While it is not within the purview of this assessment to identify precisely which items need to be added, dropped, or revised, the following discussion illustrates broad changes in direction that should occur.

While policy reform has come very far in a short period of time, more attention must be paid to the series of steps, the “transmission belt,” that are necessary before one can hope to see results on the ground. At present, the bulk of program money goes to policy reform, implying that all else flows from policy change. This approach needs to pivot, so that more effort is allocated to policy implementation.



Other major shifts also need to take place, with resource allocations reflecting these changes. For instance, in order to support the SO of sustainable natural resource management, environmental monitoring and evaluation should be scaled to fit demanded priorities. Similarly, the program should shift to field implementation. At present, project activities are limited to agroforestry and monitoring. This new direction implies an expansion of and more variety in the types of projects undertaken. Consequently, field activities, not NPA and policy reform, should comprise the bulk of funding dollars. And capacity building will need to be a core cross-cutting program element. (See table) This broader scope indicates that the ratio between NPA and PA will have to shift, as NPA currently constitutes 75% of NATURE’s financial resources.

The following program recommendations are designed to help move the SO2 portfolio towards a more efficient allocation of resources that is better aligned with the strategic objective.

<p><b>POLICY REFORM</b></p> <p>The pivot of the SO2 portfolio</p>	<ol style="list-style-type: none"> <li>1. Continued emphasis on NPA and policy change as the “pivot” of the SO2 program.</li> <li>2. Increased emphasis on policy implementation, particularly at the district and local levels</li> <li>3. Increased emphasis on “feedback loops” which (a) provide policy-relevant feedback on what is working at the field level, and (b) allows more flexibility in changing allocation of field resources based on field and policy learning.</li> <li>4. Increased coordination role for the policy program to coordinate the policy principles for economics and governance policies promoted through SO2 sponsored field activities.</li> <li>5. Creation of an on-going capacity to analyze on-going demographic, economic, social and political transformations which will profoundly influence resource management choices. To be effective, such capacity should not be largely expatriate-driven. In addition, it depends heavily on the ability to communicate the content and implications of key trends concisely to relevant decision makers.</li> </ol>
<p><b>FIELD IMPLEMENTATION AND LEARNING</b></p> <p>The bulk of program dollars</p>	<ol style="list-style-type: none"> <li>1. Significantly increased effort on field implementation and learning (which may already be happening with the start of COMPASS).</li> <li>2. Expansion beyond agroforestry to include a range of technical options which respond to what rural populations perceive to be their most pressing resource and income needs.</li> <li>3. Adoption of a broad definition of CBNRM, which does not prejudge — through its budgetary priorities, NGO partner choices or extension packages — what institutional arrangements (“communities,” local organizations, producer groups, marketing networks, private enterprises or household production units, etc.) offer the best potential for meeting NRM objectives. Emphasis should be on learning what works.</li> <li>4. Adoption of a balanced strategy which addresses the resource issues on common property as well as privately managed lands.</li> <li>5. Increased emphasis (relative to what is reflected in the COMPASS RFP) on financial cost-benefit analysis (i.e. from the resource user perspective) of proposed NRM practices, and on market-driven approaches which will be relevant in the rapidly changing economic context of rural Malawi.</li> <li>6. Increased emphasis on urban-rural market linkages, regional trade opportunities and income generation.</li> </ol>

<p>MONITORING AND EVALUATION</p> <p>Scaled to fit demand and information priorities</p>	<ol style="list-style-type: none"> <li>1. Decreased emphasis relative to its current share of the overall SO2 portfolio, which is widely viewed as disproportionate.</li> <li>2. Increased emphasis on understanding the demand for information, the cost of producing it, and its priority uses.</li> <li>3. Expansion of the sectoral coverage of information products (particularly with respect to the information needs of SO1 and the Famine Early Warning System) so as to capitalize on economies of scale in information infrastructure (equipment and skilled personnel).</li> <li>4. Increased use of and, over time, reliance upon, Malawian capacity to generate and analyze information products, perhaps through contract relationships with the public sector.</li> </ol>
<p>CAPACITY BUILDING</p> <p>The core cross-cutting program element</p>	<ol style="list-style-type: none"> <li>1. A key cross-cutting element which should be a central part of all three major program elements above.</li> <li>2. Expanded attention to local and private sector capacity building.</li> <li>3. Expanded attention to “non-training” aspects of capacity, including such things as market access, infrastructure access and credit.</li> </ol>

## 5.5 Managing the Transition

The directions suggested in Section 5.4 are very different in balance, direction and resource allocation than the current SO2 portfolio. Yet it is impractical to move from the current to the new overnight.

- First, because it will take some time to flesh out and come to a mutually agreed consensus with USAID/Malawi’s partners on the new program specifics. Arriving at this consensus will take a particularly long amount of time given the reoriented “field” focus. Further, as the program evolves to a new consensus, the players may change.
- Second, because the investments made to date, even if not always optimal, are valuable, and should not be lost as the overall program direction shifts.
- Third, there is a “tanker” momentum. Even if one wanted to, you cannot change direction immediately. It takes time for everyone to buy into the new program, and a tremendous amount of time and effort to put it into place.

However, one should be careful not to move simply from one static scenario to another. Instead, SO2 should strive to be a dynamic system, one that can capture new opportunities as they are created by change in Malawi. The following outlines short-term transition strategies that can help move from the existing scenario to the more optimal one described.

1. In-depth modeling and analysis of dynamic “nexus” linkages—As with Malawi itself, the constant of SO2 is change. To be useful, this SO must be built around Malawi as a moving target—one that keeps changing and evolving, sometimes in positive ways and other times negative. While this strategic assessment touched on nexus work in its analysis, much more needs to be done. The upcoming Country Strategy Paper planning exercise is an ideal time to examine all of these dynamic linkages which, ultimately, will lead to a better understanding of not only the point of this SO, but indeed USAID’s entire Malawi program. Accordingly, the SO2 team will

want to work closely with other SO's to organize more in-depth nexus analysis which explicitly reviews the linkages between E/NR programs and other sectors such as agriculture/economic growth, population/health/family planning, democracy and governance, and education.

2. Validate and expand on modified results framework—The results framework itself should also embody the concept of change. It should not be thought of as a static photograph, but rather as a moving picture. The recommended adjustments to the results framework suggested in chapter 3 has to make sense to the expanded SO team, based on an analysis of its logic rather than an appraisal of how current activities fit into the boxes. Thus, it should be taken back to an extended SO2 team to be validated and expanded upon. However, the composition of the extended SO2 team may change. Otherwise, there is a danger that inertia will lead to a program built around existing players rather than what makes sense for the SO. Most importantly, Malawians must “buy into” the new, detailed results framework.

Once the RF is solidified, the SO2 team should think through its performance monitoring plan, identify relevant indicators, and decide how it will manage for those results. For instance, a new RF has implications for monitoring and evaluation activities, which will need to be structured so that they ask the right questions and can act as a tool to test hypotheses and deal with a dynamic situation.

3. Review activities in light of relevance to SO and new RF—All ongoing and future activities should be reviewed in light of the results the Mission wants to achieve, as described by the new RF. No activity will have its own stand-alone or independent goal and purpose, but rather should be evaluated in terms of how they help achieve the SO. Consequently, the expanded SO2 team must define what results need to be achieved, what results will be achieved with existing activities, and what still needs to be accomplished. This may indicate that new activities should be added, that components of ongoing activities should be modified, or that some activities should be dropped altogether.
4. Make new activities, such as COMPASS, relevant to the results to be achieved—In particular, COMPASS must be brought in so that it supports the new strategic vision of SO2. The appropriate place to begin is by asking what SO2 results COMPASS will achieve? Given the evolving RF for the SO, is COMPASS as presently conceived a sufficient activity? It is likely that, with the right emphasis, COMPASS will become more important and need to be expanded to support more field-based activities. For instance, its emphasis on improving community mobilization skills should focus on the “policy transmission belt” and seek to help communities capture new opportunities created by policy changes. Similarly, the grant facility to be established under COMPASS should be incorporated into or coordinate closely with NATURE's future endowment fund. Analogously, COMPASS should “dovetail” with efforts to expand agricultural marketing and soil conservation.

5. If necessary, revisit existing cooperative agreements (CA)—Existing CAs will have to be compared to the activities needed to achieve the SO. If this review indicates the CAs should be modified to fit better with the SO, then a comprehensive dialogue between USAID and its CA partners needs to take place to agree on the specific changes. In view of the proposed changes in the RF and the evolving needs for monitoring and evaluation activities, a number of changes in the CA related to environmental monitoring are likely. At some point, it may also be advisable to consider joint funding of certain activities which are critically important to the achievement of results for more than one SO (e.g. field activities which are jointly funded by SO1 and SO2 and which contribute to the achievement of results for both SOs).
6. Realign PA/NPA mix—Efficiency and results can be improved through a better mix of PA and NPA which will most likely lead to a reduction in the proportion of program funds devoted to NPA. The large portion of funds devoted to NPA sends a signal that policy reform must be paid for. It is also highly visible on the Hill. Furthermore, in Malawi, the policy changes taking place are already an integral part of the Government's overall reform. More details on suggested modifications are contained in an accompanying memorandum. However, given existing agreements and commitments, these modifications must be discussed and negotiated with the Government. These deliberations can be held over the next 6-9 months.
7. Use NPA more effectively—The bulk of funding for the NATURE program is tied into NPA and the policy reform agenda. Conditionalities for this NPA are currently unwieldy and unlikely to be fully achieved. Suggestions for streamlining and simplifying these conditionalities are outlined in a separate memorandum. The team strongly endorses these recommendations because they will: (a) facilitate tranche releases; and (b) expedite faster movement into the new strategic vision. Negotiations regarding these changes can be held over the next 3 months.
8. Identify “target zones”—A brainstorming session of the extended SO2 team should take place to discuss those areas where changes need to be made in order to facilitate more sustainable utilization and conservation of Malawi's natural resources. Specifically, participants should be asked to fill in the following: “NRM activities would really take off if ....” In some cases, the answer will be to remove certain disincentives. This could range from suspension of specific taxes to modifications in civil service procedures. In other cases, the focus will be on providing incentives or favorable conditions in these “test” areas. As identified previously, this could include provision of credit for a range of activities, such as purchase of fishing equipment or establishment of a repair service for boats and the like. Over the next few months, USAID can work with its partners to identify those opportunities for addressing disincentives or areas where enabling conditions (e.g., access to credit or markets) need to be created. The SO2 team could then work with the appropriate players to determine what, specifically, needs to happen, and then leverage it with other activities. This could also constitute the basis of new NPA issues.

9. Develop operational plan—To assist with managing all of these changes, the Mission should develop a detailed time line that will help them keep track of strategic and operational/tactical modifications.

## Appendix A-1

# Policy Reform

In May 1994, almost 30 years of autocratic rule ended when Malawians voted for their first democratically elected parliament and president. The new government explicitly recognized the need to address natural resource management issues. One major result was the preparation of Malawi's first National Environmental Action Plan (NEAP) in 1994. Since then, Malawi has continued to make important progress in developing a coordinated approach to environmental management. Government policy now recognises the fact that the sustainable utilisation of natural resources requires the involvement of local communities, NGOs and the private sector in the implementation of programmes and management of the environment. Sectoral policies are in the process of revision to include community participation and management as important elements.

### 1.1 Umbrella Policies

#### National Environmental Policy (NEP) and Environmental Management Act (EMA)

In pursuance of the NEAP and to provide a coherent framework for its environmental policies, the Government of Malawi prepared a new National Environmental Policy (NEP) which was approved by Cabinet in January 1996. The overall goal of the NEP is to promote sustainable social and economic development in the country through sound management of the environment. Specifically, it seeks to: (a) promote the efficient utilisation and management of natural resources; (b) facilitate the restoration and maintenance of essential ecosystems and ecological processes; (c) enhance public awareness of the importance of sound environmental management; and (d) promote cooperation between government, local communities, NGOs, and the private sector in the management of the environment.

The NEP specifies guiding principles for both national and sectoral policies. At the national level, the NEP recognizes that poverty is one of the root causes of environmental degradation. It also notes that proper economic incentives are more effective than enforcement to induce people to undertake sustainable resource use and thus calls for an enabling economic framework in which the opportunity cost of using natural resources is reflected in market prices. Finally, it states that local communities have a right to obtain a share of the benefits generated from sustainable utilization of natural resources on all public and customary lands.

To facilitate the implementation of environmental policies and strategies, the NEP calls for: the creation of appropriate institutional mechanisms; a proper legal framework and laws; an integration of environmental concerns into the national, regional and district planning system; the development of a system and guidelines for environmental impact assessments (EIAs); training programmes to develop capacity for environmental management; increased environmental education and public awareness; the empowerment of local communities through community participation, and the mobilisation of the private sector and NGO's.

The implementing legislation for the NEP is the Environment Management Act (EMA), which was approved by Parliament in June 1996 and entered into force in October 1996. This law requires the government to protect, conserve and manage the natural resources of the country. It calls for an integration of environmental concerns into socio-economic development plans, and requires that EIAs be carried out for projects which may have negative impacts on the environment. Guidelines for EIAs have already been prepared and approved by the NCE. The EMA also covers pollution control and specifies penalties for contravention of its provisions.

Coordination of environmental matters and implementation of the policy and Act is the responsibility both of the Environmental Affairs Department (EAD) within the Ministry of Forestry, Fisheries and Environmental Affairs and the National Council for the Environment (NCE). The EAD's lack of capacity and its organizational positioning are the major constraints facing implementation of this policy and Act.

## 1.2 Sector Policies

Existing laws covering various sectors have either been revised or are in the process of being reviewed for consistency with the requirements of conserving and managing the environment, as identified in the NEP and EMA. These are discussed in greater detail below.

### Forestry

The government undertook an in-depth review of the forestry policy, and a new National Forestry Policy, approved by Cabinet in February 1996, provides a framework for both off-farm and on-farm forestry activities. A revised Forestry Act which reflects the requirements of the new policy was passed by Parliament in April 1997 and became effective in October 1997.

The new Forestry Policy: (a) provides an enabling framework for the participation of local communities, NGO's and the private sector in forestry conservation and management; (b) promotes agro-forestry so that smallholder farmers obtain a more diversified output of crops and wood, and at the same time soil fertility is enhanced by using leguminous trees; (c) establishes a framework for community ownership and management of customary land forest resources on the basis of management plans agreed with government, and provides for community participation in the co-management of forest reserves; (d) proposes marketing and pricing policy reforms so that prices reflect opportunity costs and private sector investment in forestry, particularly from industrial fuelwood users, is encouraged; and (e) re-orientes the forestry extension services towards improved service delivery, social forestry and participatory forestry conservation.

Implementation of the new policy requires a reorientation of the Forestry Department away from its traditional policing role to one of extension. This shift will necessitate training and awareness at all levels, within both the government and communities. As this transition will take time, in the short term, enforcement will remain an important activity for the Forestry Department. However, community management of customary forests is only a partial answer. Even if all of Malawi's forests, both the indigenous woodlands and exotic plantations, were actively harvested on a sustainable basis, the production of fuelwood, poles and timber would still fall a long way short of current demand. The

ready availability of “open access” timber resources, which no-one owned or valued, along with government subsidized pricing policies for production from state-owned plantations, has prevented the development of private sector plantations. If wood continues to have a low economic cost, market incentives will encourage deforestation and discourage the plantation of new trees. Consequently, the price of indigenous wood products needs to increase (through the closure of access to the customary forests) so that it approaches economic values. (In some parts of southern Malawi, fuelwood scarcity has already strengthened prices to the point at which trees have become a viable cash crop.)

## Fisheries

A new Fisheries Conservation and Management Act was passed by Parliament in October 1997. This Act permits the sharing of management responsibility between government and fishing communities on the basis of mutually agreed management plans. It provides the legal basis for an experiment in the co-management of fisheries on Lake Malombe, financed by GtZ, that has been ongoing since 1996. This project, which was sufficiently encouraging as to warrant the extension of co-management to a national scale, had no basis in law and the development of appropriate legislation became an urgent priority. The Act is sufficiently broad in approach to allow for the refinement of policy, through a process of consultation with the fishermen and other interested parties, to be articulated in the subsidiary legislation. The government has reviewed the former fisheries policy, implicit in the 1974 Fisheries Act and centered on the regulation and control of fishing and fish marketing. A draft Fisheries Policy which embodies the newer concepts of fisheries co-management and the limitation of access into the artisanal fisheries has been in existence since early 1996 but has not yet been presented to Cabinet.

While the Fisheries Conservation and Management Act and the still-evolving fisheries policy address many of the problems identified in the NEAP, additional constraints also require attention. As Environmental Policy Advisor Tony Seymour explains:

The popular perception of the fishery sector is that it is oversubscribed, and that the stagnation of annual yields at around 70,000 tonnes despite a sharp increase in the numbers of fishermen and fishing craft is, in itself, evidence of over-fishing and declining fish stocks. Yet direct assessments of the fish stocks of Lake Malawi (by means of research trawling or acoustic surveys) reveal an overall increase in biomass since the early 1970s. These apparently conflicting views are reconciled by the observation that the level of technology applied to the fisheries has fallen visibly over the past two decades. During the early 1990s government withdrew from or scaled down its provision of services to the fishing industry (ice and fishing gear supply, boatbuilding, etc.) Although this was intended to encourage the development of private sector support enterprises the results have been mixed, and an acute shortage of stable fishing craft is now contributing to overfishing on the inshore shallows of Lake Malawi, leaving resources further offshore generally under-exploited (Seymour 1998, 12)

Hence, development of the industry, in ways that improve fishing technologies and increase range, will also be required to achieve sustainable resource management.

At the same time, government needs to strengthen or maintain its law enforcement capacity in order to support community efforts to control or restrict fishing. Because of the mobile nature of fishery resources and the fact that they are shared between many communities, however diligently one village may control the activities of its fishermen, their rewards are entirely dependent on the actions of neighbouring villages or even distant communities who fish the same stock.

### National Parks and Wildlife

Following extensive consultations, the Department of National Parks and Wildlife (DNPW) developed a new draft National Wildlife Policy which represents a substantial departure from government's former position as reflected in the National Parks and Wildlife Act (1992). The 1992 Act, although relatively recent, originates from an older and more conservative generation of natural resource management statutes that is rooted firmly in central government control. The new draft policy, however, emphasizes initiatives to integrate boundary communities into the management of National Parks and Wildlife Reserves. It also seeks to reduce antagonism from such communities by promoting benefit-sharing and permitting controlled access to minor resources. Once this new wildlife policy has been approved by Cabinet, it will be necessary to review and revise the National Parks and Wildlife Act in order to reflect the above changes and bring the legislation into line with the EMA.

Several factors hinder implementation of this policy. DNPW must shift its orientation away from its traditional emphasis on the exclusion of communities from protected areas to one of collaborative management and multiple use. At the same time, it has neither the resources nor capacity to manage wildlife effectively. The entire DNPW recurrent budget is only a fraction of the lowest estimate for protecting the wildlife in Malawi's National Parks and Wildlife Reserves (Seymour 1998, 10). The situation is equally dire in Forest Reserves and customary lands. While devolution of management authority to communities can alleviate some of the burden on communities, it is unrealistic to expect the introduction of a co-management regime to reduce requirements for the active protection of wildlife in the immediate future. For instance, elimination of hunting in protected areas through community peer pressure may be difficult to achieve, particularly as hunting may be conducted by individuals from outside the boundary communities.

## Appendix A-2

# Community Based Natural Resource Management (CBNRM) in Malawi: Focusing Efforts at the Local Level

## 2.1 Introduction

### 2.1.1 What is CBNRM?

CBNRM is an acronym for community based natural resource management, which is increasingly being discussed in Malawi. Yet, those of us using the term might not have the same meaning for the term. Before coordination and partnerships are discussed it is important that there is agreement on what actually CBNRM is. CBNRM is the management of natural resources based at the community, or more appropriately, the local level. CBNRM therefore defines where the NRM is taking place. Knowing the location, then CBNRM gives an indication of who is involved - those people and units of organization (both social and administrative or political) at the local level: individuals, families, small groups, associations, communities, neighborhoods, villages and areas. CBNRM should not be misconstrued as "communal" or "community" NRM, although management of customary lands or the "commons"<sup>1</sup> is one of several options of CBNRM.

The term NRM is a key part of CBNRM as well, so it is important to be clear about what is meant by that as well. The first part NR, or natural resources "are the natural base on which life depends, i.e. primarily water, air, soil, plants and animals." NRM, or Natural Resource Management, is an active process to appropriately manage those natural resources. Important in the process of NRM is the effort not only to maintain individual resources (i.e. trees, grass, soil), but moreover to maintain the ecological systems upon which these resources depend and interact.

Hence, CBNRM is carefully linked with rural development, seen as both an engine of growth as well as an essential aspect in the reduction of environmental degradation - as the latter is closely tied with poverty.

### 2.1.2 Why CBNRM?

In Malawi, it is estimated that over 70% of the land is customary and over 48% of the indigenous forest is within that customary land. CBNRM developed out of the growing recognition of the importance of participation and the involvement in the management of those living closest to the natural resources. In addition, CBNRM was fostered by the search to optimize on additional methods of NRM. Since it was recognized that this management should not be solely the responsibility of the public sector, or government, which is struggling as a result of reduced efficiency, large budget deficits and an over-extended civil service.

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<sup>1</sup> **Commons**: is a geographical area, referring to land held in a certain type of property ownership, namely "corporate group property" or "private property for the group." One or several communities or villages might make up a commons area.

CBNRM is therefore something which complements the government service and not something which replaces it. In particular, since NRM is about the maintenance of ecological systems, there are times when a broader focus than the "local level" is required. For example, catchment conservation is a difficult task for a group of farmers or one community without the support of others. In this case, an important oversight function can be provided by government agencies (the state) or other broader body such as a private trust.

### 2.1.3 What does CBNRM mean in practice for various stakeholders in Malawi?

#### CBNRM means recognizing local people

The highest probability of use being sustainable is when the primary beneficiaries are the people living with and using the resources and when they have developed the appropriate institutions and acquired the needed management skills.

SASUSG, 1997, p.2 (emphasis added).

The critical element of CBNRM is its focus on „local people“ - the rural resource user. In attempting to develop a closer linkage between people and resources, CBNRM efforts encourage sustainability. In particular, by focusing on „enhanced existing or established new institutions which will endure the limited time frame and resources of the external interventions and continue to implement resource management initiatives“ (Griffin, 1997a).

#### CBNRM means giving everyone a "voice"

Participation is critical for CBNRM and this means that it needs to be inclusive, rather than exclusive. A wide variety of stakeholders in the "community" need to be integrated into the process. Natural resources are not used by only certain segments of the society, men or women, old or young, they are used by all, hence their management requires the involvement of all. Inputs of older members of the communities are important to get a clearer sense of past authority systems. Active involvement of women is critical as they play a key role in the collecting and use of certain resources. The involvement of the young is important, not just because they are "future" managers, but because they often play a key role in the management of certain resources, like the herding of livestock. In addition, CBNRM should draw on the knowledge and gain support of traditional leaders and government structures, as well as church leaders and traditional healers. (Griffin, 1998, adapted)

#### CBNRM means participation

If we understand 'participation' in the simplest of its meanings - taking part sharing, acting together - people's participation is nothing less than the basic texture of social life.

Grazia Borrini-Feyerabend, 1997, vol. II, p.24

Some elements of participation in CBNRM approaches include the following

(Adapted from Griffin, J. 1997a, p.14):

- bottom-up vs. top-down<sup>2</sup>
- inclusion
- indigenous solutions not imposed
- community control over initiatives
- less and less intermediaries
- proactive not recipient
- avoiding dependence on the outside
- ownership
- self-definition of success and accountability
- development of their own policy
- recognition of the range of stakeholders
- proprietorship

The term participation has different meanings for different people.

from Pretty, J. et. al., 1995

#### Types of Participation

Passive Participation: informing people;

Participation in Information Giving: answer survey or other questions formed by someone else, without an opportunity to influence the process;

Participation by Consultation: people are consulted and their views are listened to, yet there is no share in the decision-making;

Participation for Material Incentives: people participate by providing resources, i.e. labor, in return for food, cash or other incentives;

----- Minimum -----level----- for-----sustainable -----development-----

Functional Participation: form groups to meet predetermined objectives which can involve the development of externally initiated social organizations;

Interactive Participation: people participate in joint analysis, the formation of new institutions, take control over decisions - they have a stake; and

Self-Mobilization: people take initiatives independent of external institutions to change systems, they retain control over the process.

(Source: Adapted from Pretty, J. et. al, 1995)

Participation covers a broad spectrum from passive to self-mobilization. It is hoped that CBNRM efforts in Malawi will strive to be at the far end of the spectrum, in which a process is

<sup>2</sup> Yet, it is recognized that some degree of mobilization or animation of the opportunities and options might be required.

supported that would build local capacity, self-reliance and eventually lead to self-regulation and management of natural resources in which power, control and decision-making were all in the hands of the local people. USAID and other actors must commit itself to a long-term process in which it must remain flexible and adaptive as there is no "blue-print" for the process.

CBNRM means stakeholders focus on the local level and see themselves as service providers

Government Agencies: CBNRM means devolution of power; changes in policy and legislation (many of which have already been taken, i.e. Fisheries, DNPW, and Forestry); a shift in approach to one of service orientation and participation (which will in turn require new ways of operating and organizational changes).

Donors: CBNRM means being responsive to local needs; supporting local initiatives; and providing support to other „service providers“ who work with CBNRM.

NGOs: CBNRM means enhancing the ability of community based groups to take on many of the functions which NGOs currently carry out; serving as a middle man between the local level and other stakeholders, using their strengths and abilities which differentiate them, i.e. less bureaucracy and easier access to donor funds, than COBs and individuals.

Communities/Associations/User Groups: CBNRM means empowerment, the ability to access and direct funding and technical assistance, serve as a point of local contact, serve an advocacy role and lead their own development process.

Individuals and Groups: CBNRM means defining their rights, gaining access to resources, and developing methods of control including the appropriate authority systems (with relevant rules and regulations).

Church and religious groups, Traditional Authorities (remember that a large majority of the land is administered by them), and Traditional Healers: as leaders at the local level CBNRM means providing direction and guidance and taking a pivotal role in mobilization.

All of the above stakeholders in CBNRM need to clarify their roles in the process.

## 2.2 What is needed or required to see that CBNRM functions in Malawi?

- A service orientation on everyone's part.
- Multiple approaches to support and implement CBNRM.
- Enabling legislation.
- Different attitudes and new roles on the part of stakeholders.
- Mobilization at community level to take over management functions.
- Technical assistance to individuals, groups and CBOs to get formed and functioning.
- Support for biosphere and bioregional management initiatives.
- Support for co-management agreements.
- A view towards adaptive management.

- Donors and other stakeholders to be responsive to local level demands and initiatives, including the channeling of funding more to the local level.
- Local level actors to be proactive rather than reactive.
- Incorporate the community or local level more in "true" dialogue.
- Carry out the required organizational change to be supportive of CBNRM at various levels.

## 2.3 Recommended areas for immediate action in the field of CBNRM in the next five years:

- Community Based Organizations (CBOs) established and improved.
- Collaborative Management (CM) initiatives developed and supported.
- Local level CBNRM efforts of individuals and groups supported.
- Authority Systems (AS) developed, especially at local level.
- Organizational Development (OD) to improve "service providers" capacity at various levels, government, NGOs and private sector.

### 2.3.1 Community Based Organizations (CBOs) established and improved

#### What CBOs are

Community Based Organizations (CBOs), as the name indicates are local level organizations. The objective of this activity area is to assist in improving these CBOs where they exist, establishing new CBOs where they are not already and developing the capacities of both. "The type of capacity needed is quite far reaching from general organizational and institutional capacity to capacity to monitor the quality of resources; the capacity to protect and enforce management agreements; the capacity to access the inputs necessary to manage (including access to relevant information) and make decisions" (Griffin, 1996).

#### Why CBOs

The focus of CBNRM, and NRM for that matter, needs to be at the local level with the rural resource user. CBOs are important since communities and their members are the major users and "most appropriate" managers of the natural resources. CBOs can also serve to fill the capacity vacuum in Malawi. Since both government and NGO capacity is limited, especially in certain regions (i.e. NGOs being primarily active in the south, as result of their historical beginnings in response to Mozambique Refugee Assistance), and both of these agencies are still intermediaries as opposed to being directly at the local level. CBOs once established are a long term sustainable solution. Once the CBOs are functioning then the need for inputs from either NGOs or GOs is reduced.

CBOs provide benefits of: promoting a self-regulatory function, in their ability to apply and maintain social pressures to group members (which is easier the smaller the unit of management); capitalizing on economies of scale; provide a linkage, networking and representative role to service

providers; and assist to ensure that benefits accrue to the rural resource user. If these CBOs need to have a larger representation or voice for certain discussions with stakeholders or negotiations or advocacy to government or donors, then they can always decide to form associations or other representative bodies for those broader objectives (Griffin, 1997a).

### Malawian Examples for CBOs

Nyika-Vwaza Resource Utilization CBOs: Since 1994, with the assistance of the Department of National Parks and Wildlife (DNPW), the United States of America Peace Corps Office (USPCV) who provided two volunteers who served as PWO-Extension Staff in the DNPW, a resource utilization program (RUP) has been conducted in various areas around Vwaza and on the southwestern boundary of Nyika. The RUP focuses on promoting Community Based Organizations (CBOs) that can then conduct resource utilization activities inside the parks, based on agreements reached with DNPW through Memorandums of Understanding (MOUs) (see section 2.2 on CM as well). The approach focuses on access to resources, and NOT to land. The approach taken has been flexible and allowed for communities to choose their own form of CBO. In principle, to date, there are three main types of CBOs, which have been formed and are operating in the RUP:

1. Village Guides (Scouts): (unpaid) villagers, selected by their fellow communities, to serve as guides to other villagers who want to harvest resources in the parks.
2. Natural Resource Committees elected bodies which have a composition of 2 individuals (a man and a woman) from each village. Traditional Authorities (TAs) can be NRC members, but in most cases they serve an ex-officio status. These NRCs tend to represent an area and not just one village.
3. Traditional Leader Committees similar to NRCs except the composition of the committee is completely made up of TAs - (mainly STAs, GVH, and some VH) (Griffin, 1997a.)

Nankumba Peninsular NRM Association (NAPENAREMA): In 1993, a dialogue was initiated between local leaders and villagers in Nankumba Peninsula about the management of natural resources. This process of dialogue was supported by the DNPW, USPCV and WWF-US as part of a Sustainable Community Resources Utilization project. Natural Resource Committees were formed in 5 enclave villages and 3 adjacent villages to Lake Malawi National Park. The NRCs decided on 8th February, 1997 that they should form an association and drew up its Constitution as a Malawian Association (Trust) and selected its first official Board of Trustees on the 21st of August 1997. The Association was created to support, encourage and guide their activities; assist new NRCs to be established in other communities; and serve as a means of networking and exchanging of experiences amongst NRCs. The objective of the association is to strengthen local communities responsibility and capacity over the management of their natural resources (Griffin, 1997b).

NAPENAREMA once it is officially registered, will be a legal entity which can serve as a local NGO - CBO - which will also have the advantage of accessing funding and technical assistance, as needed and requested by the local resource users. The CBOs in the Nyika-Vwaza area could also go through a similar registration process to accrue the advantages of being officially registered.

Beach Village Committees (BVCs): Since 1992, the Fisheries Department, with technical assistance from the GTZ MAGFAD Project have assisted Fishery CBOs to be formed in the Lake Malombe and the Upper Shire. These BVCs have gone beyond just the basic elements of a CBO and have successfully moved into the realm of establishing functioning authority systems (see section 2.3.4).

Other CBOs: the Beekeepers Association of Malawi (BAM) initiated in 1989 with assistance from DNPW and GTZ - MGBDP; numerous Small Holder Agri-business Associations with the assistance of USAID, ACDI - SADP.

### How to develop CBOs

Some CBOs already exist and where they do exist these institutions should be supported first before creating new institutions. These institutions might need to be restructured or reorganized to accomplish the functions they are required to do.

The assistance in developing the CBOs and their capacity can be assisted by various "service providers" which might require short-term technical assistance in:

- mobilizing communities to form CBOs that focus on conservation, NRM and CBNRM; and
- provide backstopping and coaching to the relevant government extension units who will follow up in more detail in the establishment of these CBOs and the implementation of specific resource management processes (Griffin, 1997a).

The approach taken thus far by DNPW's extension department, in terms of allowing and encouraging communities to form their own style of CBO, should be commended, supported and others should take a similar approach. Obviously since for many communities CBO will be new there will be some need for awareness raising and explanation of „options“ (or when possible the showing of existing examples in the area), but should not be prescriptive (Griffin, 1997a).

### 2.3.2 Collaborative Management (CM) initiatives developed and supported

#### What CM is

Collaborative management<sup>3</sup> (or CM) is about partnerships by which stakeholders, in particular the local people, agree on sharing some specific management roles, responsibilities and rights (i.e. benefits) for an area or set of resources. The partnership, usually formalized through a „agreement“ (i.e. memorandum of understanding), identifies: the acceptable functions and uses for the area; an agreed set of management priorities and plans; procedures for dealing with conflicts and negotiating collective decisions; procedures for enforcing decisions; and specific rules for monitoring, evaluating and reviewing the agreement (Borrini, 1996 and Griffin, 1996).

Collaborative management (CM) operates along a continuum of varying levels of collaboration (originating and ending at either full control by a public agency or full control by other stakeholders):

- from actively consulting;
- to seeking consensus;
- to involving in decision making - negotiating and developing specific agreements;
- to sharing authority and responsibility in a formal way (e.g. involved in management body);
- to transferring authority and responsibility (Borrini, 1996, p.6).

#### Why CM

CM is important because it enhances partnerships between stakeholders. Furthermore, it no longer alienates local people from natural resources and their management, but rather leads to greater levels of responsibility and sharing of authority.

#### Malawian examples for CM

Nyika-Vwaza example in CM: The initiatives in the Nyika-Vwaza area of northern Malawi are moving progressively along the CM continuum towards greater participation of communities and other stakeholders. The CM that is taking place in Nyika-Vwaza, with the support of DNPW, is a HUGE change from past practices. In terms of allowing resource utilization inside the park (a public land), it is an example for the rest of southern Africa. Yet, the initiative still can move further from developing a "positive relationship" to developing "management partnerships" (Griffin, 1997a).

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<sup>3</sup> Collaborative management is also known as integrated management, co-management, joint management, participatory management, shared management, multi-stakeholder management, round-table agreement, social forestry, community forestry, joint forest management, participatory NRM, integrated community development programs (ICDPs), or community based resource management (CBRM) (see Borrini, 1996, p.4 and Fischer, 1995, p.5).

<sup>4</sup> Stakeholders, those who have a „direct, significant and specific ‘stake’,” are numerous and varied, their „stake“ originating from „institutional mandate, geographic proximity, historical association, dependence for livelihood, economic interest and a variety of other capacities and concerns“ (Borrini, 1996, p.2).

Creating an advisory boards one way of shifting more control over resources or decision making to local institutions and local responsibility. In Nyika-Vwaza steps are being taken to develop a co-management interim forum which with time, expanded dialogue, the building of trust and developing a sense of representation for stakeholders, it will develop into an advisory body with greater decision making roles. „The degree and nature of the decisions which they are involved in relates to the process of dialogue which is carried out and to the degree of „real“ support from DNPW and others.” A potential composition of a co-management body is shown in the box below. Such a body would allow change to occur, while maintaining a balance (the NGOs and Private Sector can act as swing players if the other two major stakeholders are in direct opposition) and fairly representing stakeholders (Griffin, 1997a)

Park Co-management Advisory Body		
40%	DNPW	national/regional interests
40%	Communities	local development and management
10%	NGOs (national)	national interests and concerns
10%	Private Sector	local interest and concerns (possibly tourism operator and/or estate representative?)

Mulanje Mountain Conservation Trust (MMCT): MMCT provides another example of CM in which eventually it is hoped that the surrounding communities of this forestry reserve will be fully integrated into its management. Currently there is a process on-going which will develop and implement a participatory management plan for the Mulanje Mountain.

### How to develop CM

CM is a process which requires political will for devolution of power, before anything else really can develop. Once this will is shown, which it appears to be in Malawi, CM initiatives can start. Due to the importance of devolving management responsibility away from the public sector, government representatives have to be involved and therefore, as explained in (2.5) the organizational capacity to support this needs to be developed. In addition, for these public sector actors to be able to play their role in CM, it is likely that some of their basic operational costs might need to be funded in the short term, possibly through NPA, endowment, trust or other sources, to allow for activities to be carried out. Preferably, the funding will be channeled in the form of a trust which can continue on in perpetuity and provide small levels of assistance on a continuous basis. If available, a short term input of technical assistance and funding would also be helpful to see that in the next five years CM agreements have been made and are being supported. The following box shows the basic steps and activities required when carrying out a CM process.

### Steps in a CM process

#### Step 1: Preparing for a partnership

- appoint a CM team to help facilitate the process - both internal members (public sector and community representatives) and use of NGOs or others (private sector) for local animation;
- assess available resources (to carry out the process, i.e. transport and support to hold meetings);
- identify main (local and non-local) stakeholders;
- assess need for and feasibility of developing a CM agreement;
- begin a stakeholder analysis (SA);
- contact stakeholders, carry out participatory appraisal exercises and continue the SA;
- if needed, assist stakeholders to organize and identify their representatives.

#### Step 2: Developing the agreement

- hold a first „procedural“ meeting among stakeholders [address substantive issues in later meetings since they are more difficult];
- appoint an independent facilitator (with skills and experience);
- hold a series of consultations and/or planning meetings among stakeholders (if there are any known limitations, in regards to time or resources, then this should be addressed when planning meetings so that the CM initiative which takes place is realistic);
- support the negotiation, mediation or arbitration of conflicts as needed;
- reach a basic consensus and/or common vision and agreement (e.g. a memorandum of understanding or a management plan - or action steps) - important to be addressed in the agreement are the specific roles, rights and responsibilities for all stakeholders;
- publicize the consensus or agreement, hold a ceremony to underline its importance.

#### Step 3: Implementing and reviewing the agreement

- if applicable, set up a relevant CM institution (e.g. a conservation council or an extended management body);
- carry out management activities;
- clarify the responsibilities and rights of stakeholders and manage conflicts, as needed, on an on-going basis;
- monitor activities and results (expected and unexpected) on an on-going basis;
- possibly, experiment with more complex technical activities and more widespread application of the agreement;
- hold regular reviews with all relevant stakeholders, based on the vision, agreement and monitoring results;
- if necessary, go back to developing a new agreement („learning by doing“).

(Adapted from, Borrini, p.16,1996).

### 2.3.3 Local level CBNRM efforts of individuals and groups supported

#### What local level CBNRM efforts are

Local level CBNRM efforts are genuine initiatives by rural resource users to utilize and manage their resources. Support to these efforts can be in the form of financial (i.e. availability of credit) or technical assistance (i.e. marketing strategy and/or the formation of a cooperative).

## Why local level CBNRM efforts

Local level CBNRM efforts are critical because they develop from real demands by resource users to improve their livelihoods and to maintain the resource based which allows for that use. Moreover, support to local level initiatives gives a value-added effect to those efforts.

Equity and distribution element needs to be worked on more in the RUP. Some of the more successful RUP initiatives so far have occurred due to the initiative of one of two individuals, who in turn reap the majority of the benefits from the harvesting. On the one hand, this practice is in keeping with the principle that the closer the link to the management (assuming this takes place), then the greater the benefit. However, if one of the goals is that the community receives benefits, then it needs to be assessed ways in which the community can receive more overall benefits. One way of getting more benefits to communities who manage the resources - without losing the entrepreneurial flair of individuals in the community and still keeping communities in the "drivers seat" of control - would be to allocate a harvesting block or right to a community which could then choose to issue that block out to one community person (or private sector person, non-commercial) to harvest on their own and pay a percentage or harvest block fee back to the community. This example might be more economically lucrative and in the end provide more benefits to the „community“ on a whole.

## Malawian example of local level CBNRM efforts

In the north of Malawi in Muajimbula Village, along the southern edge of Nyika National Park, there is an industrious man named Armstrong Kapila. Armstrong is a young man who serves as a Village Guide as part of the DNPW supported Resource Harvesting Program. Armstrong is a successful participant in this program utilizing resources which he was previously restricted access to. What makes Armstrong different from many of his fellow villagers (who either do not utilize the resources or only utilize them for subsistence) is that he has not only taken the initiative to participate in the program, by harvesting grass, but he is developing a small income generating activity out of it. Now Armstrong actually employs other villagers to harvest with him so that he can produce more grass mats for sale. Currently, Armstrong only sells in his immediate neighborhood and he is unaware of the potential profits he could have if he were to improve his marketing capability and expand to markets further away, which are in even greater need of his product (due to their distance and the scarcity of the resource in other locations). The most interesting aspect of this local level initiative is that it has begun to lead into some of the other aspects of CBNRM, like co-management and authority systems. Armstrong has voiced the idea of somehow gaining clearer access rights in the form of an agreement with DNPW so that he is actually responsible for part of the management of the resource which he relies on for his livelihood.

Along the lakeshore in Nankumba Peninsular, similar to Armstrong, some of the local people representing their Natural Resource Committees at a NAPENAREMA (Association) meeting, are involved in handicraft production which they sell by the road side. Their main market are the tourists and visitors to the large hotels along the lakeshore. Currently, they are producing products and marketing them ineffectively, in part because they are distanced from the consumer - both in respect to their demands and appealing locations to sell to them. They have requested assistance to improve their efforts and this is another ideal area to respond to local initiatives.

Baobab Juice: another community has recently started the production and distribution of juice pressed from Baobab fruit. This is based on decisions by local resource users to value add to a product that they were merely using for subsistence purposes previously. The WSM is providing technical assistance along with the GTZ-SADC Forestry Project, but additional types of assistance might be required. Similar types of examples and opportunities exist in Malawi, which are just waiting for a little assistance to make a vision become reality.

Traditional Healers in Dedza: Noticing the decline of indigenous forests upon which they depend for their livelihoods and essential practices (which benefit numerous other local people), traditional healers in the Dedza area approached the local Traditional Authority and asked that a certain amount of land be allocated to them for the regeneration and establishment of an indigenous forest. The management of the forest would be taken over by the traditional healers who have a distinct interest and incentive to see that it is properly managed. They also might need small amounts of assistance to make their CBNRM initiative that much more successful and this is again an example of the type of local level support which can be focused.

### How to support local level CBNRM efforts

Support to local level CBNRM efforts should be a response to initiatives taken on the ground and to the demands of the rural resource users. Control and direction of the initiatives must be left in the hands of the local user. Once they have been initiated, these local level efforts will most likely require small levels of technical and financial assistance, which need to be made available to them in a relatively straightforward manner. Detailed and extensive application procedures and long time delays between request and allocation of assistance will only serve to take the momentum out of innovative ideas. Their needs to be a balance in the level of support provided. It will be counterproductive, and negatively affect ownership of the process, to pump large amounts of human and financial resources into an initiative which has not developed much momentum of its own. The process of support will need to allow initiatives to grow at realistic levels that communities can support even when inputs are terminated (Griffin, 1997a). Another aspect of support is to work to better understand the needs and demands of rural resource users. The MMCT, with assistance from DFID/WB will be conducting a study later in 1998 which will address these local level issues for the Mulanje area, but the findings will be useful for others working at the local level within the field of CBNRM.

### 2.3.4 Authority Systems (AS) developed, especially at local level

#### What Authority Systems (AS) are

Authority systems are defined as the ways in which management regimes exercise their management control over resources. These authority systems are comprised of norms and behaviors (rules etc.) which control use of resources and which have the ability to exclude or restrict access to resources. They exist to ensure that the expectations of those who hold the rights to certain resources are indeed met and they define the structures of rights and duties characterizing the relationship of individuals to one another with respect to particular resources. In short, the authority system exercises control (Bromely & Cernea, 1989; Griffin, 1998)

## Why support authority systems

It does not make any sense to spend time planning how to manage our natural resources, if we do not have the authority system to implement our decisions, unless we first have some type of control, then we are wasting our time here planning.

Local Farmer (emphasis added)

Authority systems are the critical link which puts in place local institutional systems which give the sustainable backbone to CBNRM initiatives. Incentives have been identified as important both for their provision of benefits as well as their ability to provide sanctions. It is the hope of established authority systems that in providing the latter they can ensure greater returns of the former. Improving the authority systems effects peoples ability to control use of resources as well as by improving the ability of the "community" to exclude access to resources. Unfortunately, in CBNRM, this tends to be one of the least addressed issues. Its importance is paramount, since it makes the switch from purely resource users to resource managers.

Those in charge of policy changes should see that strengthened authority systems, which afford people the opportunity to have control over their resources, are part and parcel of this capacity and that it is these systems which offer the key to "sustainability."

Based on this understanding of authority systems, the "complex process" of shifting from an open-access situation of no control to a managed system with communal control can take place (Griffin, 1998).

## Malawian example of Authority Systems

Lake Malombe fisheries is an example of local users who have taken over the control and management of their resources. They have determined by-laws and regulations, about mesh sizes and harvesting procedures and are providing enforcement as well, with the backing of the Fisheries Department. Moreover, the process is beginning to develop an even greater dynamic of its own. Individuals and communities who were not actively involved in the process are looking to what is happening at Lake Malombe and are trying to replicate similar systems where they live. An internal mobilization, training and process expansion has taken off.

Nyika-Vwaza: Communities and local resource users active in the resource harvesting program are now in the process of making the next step to becoming involved in self-regulation and management. Although the RUP to date has not gotten communities involved very much in these aspects of control, there still have been increasing cases of individuals and groups involved in the RUP reporting on „poachers“ and others violating park regulations. Hence, it is very likely that the development of authority systems will happen soon in the Nyika-Vwaza area as well.

## How to develop Authority Systems

The development of CBNRM Authority Systems is a long „process“ which requires a local focus, participation, facilitation, transparency and patience. It develops at its own pace - either slower or faster dependent upon the demands of the communities and on the responsiveness of the

facilitators. Participation is a critical component of the process, but participation is more than conducting a variety of participatory methods (i.e. PRAs). Although PRA methods are used, these are only elements of an on-going "dialogue." An even more process-oriented approach is required, taking place over a longer time horizon than either PRA or RRA traditionally would provide. The process also needs to be adaptive, developing new methods on the spot to fit the situation. There are no "blue-prints" of what the process is going to look like. Yes, there are some general ingredients and steps, but which form they will take are unknown before the process starts. Those facilitating, as well as involved in the process, need to give time to let it evolve and develop its own dynamism (Griffin, 1998).

Eight stage CBNRM Authority System (AS) development process  
Developing CBNRM - AS, why?

Stage 1: Create awareness with members of a communal area about developing CBNRM and that a change is needed.

Stage 2: Recognize the incentives or benefits to members from developing an AS (which might need to be explained and understood).

Stage 3: Decision to take action, by communities, their members and their leaders, to want to initiate a CBNRM - AS development process.

How to develop CBNRM - AS?

Stage 4: Establish a new management organizations - „resource rangers“ patterns and social authority systems need to be developed to assure that the rules are followed, control is exercised and that implementation of management takes place. These new management systems need to be legally empowered and supported by the government.

Stage 5: Establish rules.

Stage 6: Establish enforcement mechanisms.

Stage 7: Awareness about the communal management system needs to be created so that members (all pertinent individuals) know about the management organization, the rangers, rules, and enforcement mechanisms.

Can these CBNRM - AS work?

Stage 8: Develop alternatives to existing use patterns and means (ability) for members to be able to comply with the authority system (rules).

(Source: Adapted from Griffin, 1998)

### 2.3.5 Organizational Development (OD) to improve capacity of "service providers" at various levels, government, NGO and the private sector

What is OD

Organizational development is what improves and optimizes the ability of an organization, by clarifying the organizational culture, roles, vision, strategic plan, group dynamics, ways of intervention and operating procedures.

## Why OD

Government organizations should not be forgotten in CBNRM. They have resources and expertise that need to be mobilized. If the capacity of these organizations are improved then they can all the better act as service providers to CBNRM initiatives. OD for NGOs will also assist them to become more focused and better able to be service providers. Healthy institutions are part of the foundation for sustainable NRM.

On the one hand, additional staff can be directed to CBNRM efforts, i.e. DNPW switching management staff over to extension to assist with RUP and the same should happen with Forestry to assist with co-management. Those with greater potential to work in CBNRM must be selected and encouraged to do this work. In addition, in the future when these organizations are hiring new staff they have to be looking for a different set of criteria when selecting and training.

For example, the resource harvesting program is seriously hindered by the lack of capacity of the DNPW to provide the required extension manpower and skills to conduct outreach and insufficient staff to conduct the research and monitoring to be able to issue more quotas to CBOs and resource harvesters „to facilitate access to harvestable resources and benefits wherever possible“ (DNPW, 1997b, p.6).. DNPW by reviewing its current organizational structure and operating procedures it could more effectively meet its new policy objectives, which include promoting CBNRM.

## Malawian examples of OD

Fisheries Department: In the end of 1997 and beginning of 1998, the Fisheries Department conducted an organizational assessment which was designed to improve its operating procedures in what is now a „new“ environment.

Action Aid: As with other NGOs (more so than government), Action Aid has conducted a strategic planning exercise, strategic vision and initiated an organizational change process.

NAPENAREMA: Has made efforts to move from a CBO to a local NGO by becoming an Association and a registered trust. It has undergone a strategic planning exercise, developed a vision and written and approved a constitution. Although it is still in its infancy some promising steps have been made.

## How to develop service providers capacity with OD

Undertake strategic change processes with the relevant organizations. Conduct stakeholder analyses. Assist these organizations to develop a clear vision about what services they can and should provide and how they are to provide them most effectively - making them more client driven (oriented). Determine what the organizations roles and responsibilities are in CBNRM in Malawi.

In addition, technical assistance to the extension staff can be provided, with a focus on developing the skills needed to create devolution and self-regulation and management by communities. Some aspects of Participatory training (PEM) can be helpful, but PRA or PEM on their own is NOT desirable. The training must be appropriate to CBNRM and have more of a focus on training for transformation and organizational development methodologies than straight PRA or PEM.

## 2.4 COMPASS: some thoughts about which "direction" to take

### 2.4.1 Integrating the five recommendations into COMPASS:

Existing COMPASS	Newly „Directed“ COMPASS
R1: Capacity to administer effective CBNRM programs and technical services in place	This result is useful, especially the coordination aspect. Yet, it must be enhanced by recommendation 5 (see 2.5), <u>organizational development</u> to improve „service providers“ capacity at various levels.
R2: Functional liaison, communication & information exchange among CBNRM efforts established	This result is useful, especially in terms of exchanges between local resource users.
R3: Community mobilization skills improved	This result <u>MUST</u> be more focused at the local level and assist and be involved in more field related activities with local people (which is being emphasized by all stakeholders). It must also go beyond „mobilization“ into the organizational realm. The recommendations: 1:CBOs established and improved (see 2.1); 2:Co-management initiatives developed & supported (see 2.2); 3: Local level CBNRM efforts of individuals and groups supported and (see 2.3); 4: Authority systems developed (see 2.4); would also assist in concrete ways to make this greater linkage. If the COMPASS project were to allocate percentages of input this result area should receive the majority of the inputs. Technical assistance is especially required to promote and support these activities. It is also in this area where there stands to be the greatest amount of partnerships and cost sharing and it is here where sustainability will be built into the system by the users.
R4: Policy and legislative basis for CBNRM established	This result is useful and assists with the enabling environment, although much of the work in this area has been initiated and is proceeding.
R5: Grants facility established	This result could be useful to assist with result area 3, to „jump start“ activities, and with recommendation 3 (2.3), <u>IF</u> it is responsive to local initiatives and strives for sustainability in the way of trusts which are enduring. However, there are already various financing facilities in Malawi (which hence lowers the priority of this result) which are having difficulties disbursing funds and actually reaching the local level - so this too must be addressed.

## 2.4.2 Malawian examples to build upon

Malawi is not a land of inactivity. As the section on recommendations in the field of CBNRM showed, Malawi has some great initiatives on-going and being started that hold some wonderful lessons for other CBNRM initiatives in the country. Some of these activities are unique and innovative lessons to export to the rest of the region (as opposed to the reverse), i.e. the Beach Village Committees and the Co-management of Fishery Resources; the Resource Harvesting Programs within National Parks and Reserves like those around Nyika and Vwaza further along the co-management and participation continuums than most of the rest of southern Africa; and the innovative financing and management systems being developed between the Forestry Department and surrounding communities as part of the Mulanje Mountain Conservation Trust (MMCT) efforts. These initiatives and many more are dispersed throughout Malawi, although awareness and application of regional lessons are important, CBNRM should start by building on the capacities and experiences that are already here in Malawi. In addition, of course, it is beneficial to keep an open ear to what is happening in the southern African region. Knowing and participating in the greater regional CBNRM initiatives should be more easily facilitated in Malawi by having the GTZ-SADC Forestry Project and the IUCN/WWF/ART (USAID) SADC-NRMP (CBNRM) Project both based here along with the SADC Technical Coordination Units for Forestry, Fisheries and Wildlife.

## 2.4.3 Inclusion of Wide Variety of Stakeholders

The COMPASS project should focus not only on NGOs and their existing areas of operation, but on a wide variety of stakeholders. This would include community-based organizations (CBOs), farmer and other groups, individuals, and service providers (e.g., NGOs and others) across the country. The location of the COMPASS program, therefore, should reflect and capitalize on this variety. It should also be designed to enhance the capacity of public sector institutions so that they can enter into co-management agreements with communities; help establish NGO capacity in areas currently lacking, e.g., the central and northern regions; and assist CBNRM work at the local level at various locations throughout the country.

## 2.5 Public Lands—Protected Areas

The concept of biodiversity highlights the point that protected areas can not be managed in isolation, but instead will benefit greatly from partnerships with other sectors (and stakeholders) (including agricultural, forestry, fisheries, wildlife tourism, energy, industry, health, education, local administration).

"The Convention on Biological Diversity," J. McNeely, p.86, in R. Robinson, 1995)

Protected Areas are geographically defined areas which are designated or regulated and managed to achieve specific conservation objectives (J. McNeely, 1995, p.89). A new approach to protected area management has been increasingly taken over the last decade (1985-95) (Wells, 1992). The new conservation approach is people-centered, focusing on integration of conservation and development, utilization, inclusion, participation, access to natural resources for local people and collaborative management. One of the main differences between the new and the old approach is that

the new approach tries to combining conservation and development in a win-win fashion (Griffin, 1997a). However, protected areas still are, and always were, a critical element of conservation. Their name (and more importantly their perception by stakeholders) may change, but their function will still remain very much the same (McNeely, 1994).

### 2.5.1 Protected areas provide benefits which need to be maintained

Protected area management traditionally has and continues to provide „benefits“ to local people, as well as a wider stakeholder group, in terms of protection of ecosystem functions, i.e. watershed protection (which is one of the main justifications for most of the protected areas in Malawi); biodiversity conservation and recreation and tourism. The difficulty with this element of benefit is the recognition by local people that they are even receiving this benefit. In fact, the recognition of this benefit is not just for local people but also for policy and decision makers at various levels, so that the value of the protection and management of these resources is properly understood.<sup>5</sup> (Griffin, 1997a).

Protected area management strategies need to incorporate the approaches discussed above, but must also continue to conduct and improve their efforts to maintain the resource base through many of the additional methods of protected area management that have been traditionally carried out. The overall strategy is not one of throwing out the old approach completely and replacing it with the new, but rather one of adjusting, complementing and adding to the old approach so that the result is a new more holistic approach. As much as it is true that people must be part of the equation, so too must the resource base upon which they depend (Griffin, 1997a).

### 2.5.2 Biosphere or Bioregional Management

Biosphere Management (BM), or regional ecosystem management, thinks of management of natural resources holistically as part of a larger regional fabric. The principle behind Biosphere management is that the majority of biodiversity exists outside of protected areas; therefore a broader regional conservation strategy is required. BM strives to integrate and find linkages between various geographic areas and a wide variety of stakeholders. UNESCO in the 1970's began promoting the concept of biosphere reserves, as part of the Man and the Biosphere Program (MAB) which were one of the first initiatives that emphasized the value of incorporating the needs and perceptions of local people in the establishment and management of reserves (protected areas). One of the main objectives of a MAB reserve is to serve as an indicator of human influence on the surrounding environment.

### 2.5.3 Recommendations for protected areas or public lands

- Collaborative management efforts supported.

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<sup>5</sup> Economic valuations, including contingent valuations (see Dixon) can help to identify and quantify the benefits which a protected area provides, i.e. calculating the value of agriculture downstream of a watershed has been calculated in Thailand to be worth several million US\$ yearly. These valuations can help justify the conservation efforts.

- A protected area system plan to maintain the resource base and clearly prioritize areas and maintain the resource base (also an important part to integrate into DNPW OD).
- Promote the development and management of biosphere or bioregional management (similar to the Model Forest initiative which has been discussed recently in Malawi) (see Griffin, 1997a for more discussion and an example of how this might work in the Nyika-Vwaza Area of northern Malawi).
- The operational budget of DNPW needs to be supported through NPA financing and/or other mechanisms which if set up as trusts might allow for the continued management of these important areas whose benefit is provided, sometimes unknowingly, to the majority of the Malawian population.

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## Appendix A-3

# Institutional Framework for National Environmental Coordination and Management

### 3.1 Introduction

The Department of Environmental Affairs (EAD) has been in operation for about two years in its present structure. In that time it has been instrumental in the formulation of new national and sector policies affecting the natural resource sector. Assisted by UNEP and others, EAD has provided the impetus and coordination for the policy reform process in the NRM sector. The department manages the environmental impact assessment (EIA) process and has produced EIA guidelines. In addition, it helped establish the National Council for the Environment (NCE) and the Technical Committee for the Environment (TCE). The work is by no means complete but a process has been put in place.

With minimal human and materials resources, EAD in its first 18 months began to garner credibility and fruitful collaboration with implementing agencies. However, this atmosphere has not been sustained and expectations for a stable, effective coordination organization have not yet materialized. While the need for a well-functioning national environmental coordination mechanism in Malawi is as great or greater than ever, at present EAD is having significant difficulties. Its mission is not clear to many of the technical staff in NRM institutions. In addition, it is overextended and overworked. Donors have not coordinated their assistance to EAD for capacity building. Further, an increasing number of projects and funds are being channeled through EAD, and therefore there is a risk of confusing its coordination role with implementation activities.

This report analyzes the multiple reasons for this downward trend in EAD's ability to carry out its coordination mandate effectively. It discusses EAD's current organizational structure, management style, the flow of information and internal and external communication, staffing patterns, staff qualifications, progress in capacity building, and the overall credibility the agency enjoys with NRM line ministries and other agencies. Also examined is the adequacy of the positioning of EAD within the GOM organizational structure. Specifically, section 3.2 examines the important issue of the positioning of EAD within the civil service hierarchy. Section 3.3 describes the structure of the national institutions which have a lead position in the national coordination and management of the environment, particularly EAD, NCE, TCE and the Parliamentary Committee on the Environment (PCE). Section 3.4 reviews the current status of these institutions and discusses the problems and constraints they face. Section 3.5 describes present or planned donor assistance for capacity building for environment and natural resource management. Section 3.6 presents recommendations of how donors might intensify their efforts in capacity building in the environment and natural resource arena.

## 3.2 The Role and Position of EAD

### 3.2.1 Background and History

In Malawi, as in many other developing countries in Africa, the preparation of the National Environmental Action Plan (NEAP), adopted by the GOM in 1994, exposed a major weakness. The institutional framework for effective environmental coordination and management in Malawi was found to be seriously deficient, particularly in view of the absence of an institutional framework and professional staff required to assume the many responsibilities inherent in environment/natural resource management (Env/NRM).

Initially, a very small division was created to deal with environmental issues and located in the Office of the President and Cabinet (OPC). In 1994, after much deliberation and analysis, the Ministry of Research and Environmental Affairs (MOREA) was created to respond to the need for an effective institutional framework as expressed in the NEAP. MOREA was operationally responsible for the coordination and management of environmental affairs in Malawi. In 1995, the Environmental Affairs Department (EAD) was established within MOREA. In 1997, however, MOREA was abolished and EAD was moved as a department to the Ministry of Forestry, Fisheries and Environmental Affairs (MOFFEA). This move is among the causes of many of EAD's problems which are described in more detail in the following paragraphs.

#### Environmental Management Act (EMA)

As summarized below, the Environmental Management Act (EMA) clearly defines the functions and responsibilities of the Minister-in-charge of Environmental Affairs. It states "the Minister responsible for the protection and management of the environment and the sustainable utilization of natural resources shall, in consultation with lead agencies, take such measures as are necessary for achieving the objectives of the EMA."

The responsibilities of the Minister-in-charge are delegated to the Director of Environmental Affairs (DEA). They include:

- advise the GOM on all environmental matters;
- formulate and propose environmental policies and strategies for consideration by the GOM;
- assist line ministries to integrate environmental considerations into their development policies and strategies;
- assist line ministries to integrate environmental considerations into their development strategies.
- co-ordinate and liaise with concerned technical ministries, local communities, the private sector, NGOs, and other development partners;
- advise concerned entities in enforcement of environmental legislation, monitor compliance, arbitration of conflicting interests;
- monitor adherence to international treaties and agreements, provide relevant information and advice to the concerned ministries or agencies;
- develop an environment information system (EIS) to monitor environmental impacts on Malawi's natural resources and other sectors with environmental concerns; establish a

- environmental documentation center; co-ordinate and promote the use of EIS-generate d information, and establish an environmental documentation and information center;
- enhance national capacity for environmental management through the promotion and co-ordination of environmental training, formal and non-formal education; enhancement o f environmental awareness among all strata of Malawian society;
  - advise and support Governments initiatives on decentralization as it relates to the environment, i.e. strengthening district capacity for environmental management, enforcement of standards and regulations, and supporting community Env/NRM activities; and
  - prepare a periodic "State of the Environment" reports for submittal to Government and other concerned parties.

Although not mentioned in the EMA, another crucial role for EAD is to play an advocacy role for the environment. This is very important at a time when there is little knowledge about the environmental dangers facing the country among the general population.

As specified in the Environmental Management Act, the Ministry charged with the environment will act through several mechanisms: (I) through legislative and judiciary functions , where regulations are defined and enforced; (ii) through the Ministry of Finance, which will provide funding, sanctioned by the EAD, for programs aimed at changing behavior and inducing environmentally friendly natural resource management; and, (iii) through the power given to the EAD to coordinate ministerial actions which impinge upon the environmental agenda.

### 3.2.2 Location of EAD in the GOM's organizational Structure

There are a number of problems that have surfaced as the result of the GOM's decision t o place EAD into MOFFEA as a coordinating department within a larger implementing ministry. In practical terms, the bargaining power of EAD has been sharply reduced in terms office accommodations, staff and other resources. Managing the environmental impact assessment (EIA) process, which is provided for under the EMA and for which re gulations have been introduced, could be compromised if EAD does not retain an identity separate from line ministries and othe r implementing agencies.

Coordination of technical ministries and development partners (e.g., active in the natura l resource sector and participating in Malawi's long-term Environmental Support Program whic h include at least 14 ministries and 14 or more international and bilateral funding agencies) is a crucial and difficult task to undertake under any circumstance. However, coordination, as EAD's mos t important responsibility, is difficult, if not impossible, from a lower-level department in a n implementing ministry. Because they must interact with numerous individuals and entities in government circles as well as with the private sector and NGOs, EAD staff must have the requisite authority and prestige to be able to speak from at least an equal position.

According to the EMA, EAD will recommend to the Government, on the advice of the NEC, environment-related international and regional treaties, conventions, or agreements to which Malawi is or will become party. EAD needs to bring high-level prestige and expertise to these events and activities.

One of the most critical roles of EAD is the management of EIA, a process which requires analysis of key environmental issues. In some cases, an EIA will lead to conflicting conclusions about individual projects and activities. From time to time there will be a need for an impartial arbiter. EAD, with advice from the Council, will be called upon to play this role and must be able to speak with an authoritative voice, which will be difficult as a lower-level coordinating department in an implementing ministry. Further, since MOFFEA may be directly involved in such disputes, EAD, as a department in this ministry, may not be able to play an impartial role.

In sum, the transfer of EAD to MOFFEA has led to an erosion of its visibility and recognition, factors which can be critical to its success in spearheading efforts to reverse the degradation of the rural and urban environment.

### 3.3 Structure of National Environmental Institutions

#### 3.3.1 Environmental Affairs Department

The Environmental Affairs Department (EAD) is headed by a Director (DEA), who is assisted by a Deputy Director (DDEA). It contains 6 operational divisions. These are:

- Administration and Finance Division (AFD)—responsible for EAD’s accounting and financial operations, procurement, office management, staff recruitment, management and training, vehicle and transportation management and office infrastructure.
- Policy and Planning Division (PPD)—responsible for developing coordination mechanisms, forwarding environmental planning, updating the National Environmental Action Plan (NEAP), ensuring environmental considerations are integrated into sector policies, and assisting in sector policy development and review. It collaborates with the Outreach Division (see below) to advise and assist District Development Committees (DDC) in the preparation of District Environmental Action Plans (DEAP).
- Environmental Impact Assessment and Inspection (EIAI) Division—responsible for developing guidelines for environmental impact assessment (EIA) and implementing these procedures. It will provide training for staff of technical ministries in procedures and techniques for carrying out EIAs and ensure mitigation plans are prepared and carried out when appropriate. It is also responsible for inspection of sites and actions which pose a potential threat to the environment or contravene environmental laws and regulations.
- Education, Training, Outreach and Communication Division (ET OCD)—responsible for enhancing national capacity for environmental management through the promotion and coordination of environmental training at all levels. This includes promoting and assisting the Ministry of Education in the integration of environmental studies into existing primary and secondary and tertiary curricula. A National Environmental and Communication Strategy has been developed and the activities described therein will be promoted and assisted by ETOC. This division also has responsibility for: the establishment and maintenance of the network of environmental focal points; and developing public awareness and environmental information

initiatives through mass media, posters, school campaigns, etc. In addition, it will serve as liaison with District Development Committees and the District Environment Officer, and be the focal point for promoting and facilitating coordination of national and international non-governmental organizations (NGOs) active in the environmental arena.

- Legal Division (LD)—responsible for review and assessment of environmental laws and regulations. It recommends revisions and amendments as required by changing circumstances. The Legal Division is responsible for the legal aspects of policy development, legislation, regulation and standards with concerned line ministries and private entities. It will strive to promote increased awareness of environmental laws and regulations and advise environmental interest groups on legal matters concerning the environment. Further, it assesses international and regional environmental conventions and agreements and treaties and advises Government of the legal implications for Malawi.
- Information Division (ID)—responsible for increasing national capacity to create and manage an operational Environment Information System (EIS). The EIS is intended to provide timely information to support and maintain an inventory of environmental and natural resource activities in the country. This division will also manage an environment library and documentation center, which will disseminate information generated by a computerized database and other sources and act as a depository for domestic and international environmental publications.

### 3.3.2 National Council for the Environment (NCE)

The EMA established the National Council for the Environment (NCE) to address the need for a high-level advisory board to consider critical environmental issues. The President, upon recommendation of the Minister, appoints the NCE's Chairperson. Members of the NCE include: the Secretary to the President and Cabinet, the Principal Secretaries of Ministries, the General Manager of the Malawi Bureau of Standards, the General Manager of the National Herbarium and Botanical Gardens of Malawi, a member of the Malawi Chamber of Commerce, a member representing natural resource NGOs, one member representing the National Commission for Women in Development, a Vice-Chairperson of the Council, and the DEA as Secretary to the Council.

The NCE has two sub-committees, one for the northern part of the country and the other for the south-central area. The EAD serves as the NCE's Secretariat. It meets 4 times per year.

Broadly, the NCE:

- provides high-level political support for environmental management and protection;
- provides oversight for the work and operations of its Secretariat, the EAD;
- ensures that environmental concerns are addressed on a national, regional, district, and local basis;
- reviews environmental policies formulated by the EAD or others, and advises the Cabinet on action to be taken;

- plays a role in arbitration and resolving conflicting proposals from bodies and individuals undertaking activities which impact on the environment, seeking a decision from the Cabinet when conflicts can not be resolved by the Council itself;
- ensures all on-going and proposed development take environmental considerations into account, activities in Malawi take environmental and that damaging effects on the environment will be minimized or reversed, consistent with sustainable development practices.

### 3.3.3 Technical Committee on the Environment (TCE)

The EMA also established a Technical Committee on the Environment (TCE), which is composed of people with expertise in a variety of environment and natural resource management areas. Its responsibilities include examination of any scientific issue which may be referred to it by the Minister, NEC, EAD or any other agency requesting NCE advice. Specifically, it recommends action for the solution of critical environmental problems; carries out investigations and conduct studies into the scientific, social and economic aspects of any activity, occurrence, product or substance which may be referred to the Minister, the NCE or the EAD or any lead agency and makes recommendations about necessary actions; and provides advice to the NCE on criteria, standards and guidelines for environmental control and regulation, including the form and content of environmental impact assessments.

Ideally, the TCE meets 4 times per year. However, its members are widely spread throughout the country, making meetings difficult to arrange. The TCE prepares technical briefs for the NCE. EAD provides secretarial and logistic services for both the NCE and the TCE. However, the low level of qualifications and computer literacy of some of EAD's support staff limits its ability to serve this function. Thus, most preparatory and follow-up work is assumed by the EIA Technical Advisor.

### 3.3.4 Parliamentary Committee on the Environment (PCE)

Considering the large extent of visible environmental degradation in both rural and urban Malawi, it can be anticipated that public debate about these issues will increase and, as consequence, more attention will be given to them by the political leadership. Unquestionably, environmental issues will come before Parliament for consideration and debate as new environmental laws and policies are proposed, especially those that may affect their constituencies.

The establishment of the PCE serves two important purposes. First, the Parliament will be able to advise the Government of public and parliamentary opinion regarding environmental issues in their regions. Second, the Government will be able to keep the Parliament abreast of its activities to mitigate environmental degradation. Parliamentarians will be able to share this information with their constituencies and encourage their constituencies to solve many environment and natural resource management problems in their communities.

### 3.3.5 EAD Linkages

EAD is responsible for the coordination and integration of all Env/NRM activities. The implementation of projects and programs, however, is the responsibility of technical ministries, departments and other implementing organizations. If effective coordination is to take place, strong linkages between EAD and these organizations must be established.

To address this need, in 1995/6 a network of environmental focal points (FP) in each of the ministries, the private sector, NGOs, para-statal, etc was created. The FP is the environmental contact point for communication between EAD and the ministries for issues pertaining to the environment and for the distribution of pertinent Env/NRM information in their own ministries. Feedback from the technical ministries provided by the FP is crucial if EAD is to carry out its coordination responsibilities. This would ensure a mutually productive and satisfactory professional relationship between the concerned ministry and EAD.

However, the FP network is only partially functional. Frequent staff changes in the ministries and EAD have hindered the operationalization of this network. For instance, some focal point officers (who attended special workshops designed to discuss environment and build working relationships) have left, without any replacement being appointed.

### 3.3.6 EAD's Linkages with Districts

Environmental managers in many countries have discarded the traditional linear model—"science creates technology, extension transfers it, and farmers use it." Increasingly, the concept of a "local process" and "community participation" is being adopted, as articulated by the National Environmental Policy and new sector policies. This shift implies that projects and programs should not only enlist the support of the people, but their active participation in identifying, preparing and implementing environmental actions in their communities.

To promote and assist this process, District Environmental Officers (DEO) will be posted in each of Malawi's 25 administrative districts. They will be integrated into the District Development Committee (DDC), where they will advise and assist the representatives of the technical ministries (agriculture, forestry, water, etc.) on environmental matters. The DEOs are EAD staff and are administratively responsible to EAD. However, in effect they are responsible to the District Commissioner (DC) and the District Development Committee (DDC).

Several challenges face the DEOs. First, many have not yet had adequate training in environment or natural resource management issues. In addition, they lack practical experience. This technical expertise is crucial if the DEOs are going to establish any credibility with their colleagues in the District Development Committee, who they are supposed to influence. However, if the DEOs get access to basic Env/NRM training before or soon after they report to their districts, and on-the-job training throughout the first 2 years, they can represent a valuable addition to Malawi's pool of qualified officers, especially at the community level.

Also potentially problematic is the financial sustainability of the DEOs. UNDP is financing DEOs in 14 districts (6 are already in place) and DANIDA is planning to finance DEOs in the remaining 11 districts. While the GOM has given assurances that all 25 DEOs will be absorbed into

the civil service within 2 years, there is a high likelihood that it will not have the financial capacity to do so.

### 3.4 Current Status, Problems and Constraints of EAD

#### 3.4.1 Management Issues

Management in EAD needs improvement. The Director is significantly overworked and overextended. It is difficult to address management problems under present circumstances. Clear lines of authority have not been defined and decision-making is highly centralized. Inter-divisional communications are not well-developed or formalized. Delegation of authority is rare and the decision-making process is cumbersome. Perhaps because of 30 years of highly centralized rule, staff do not raise issues which may result in a conflict with management. Short- and medium-term work plans for the department, its divisions and the individual officers have not been developed. The perpetual dearth of staff has shifted additional work onto already over-extended officers. There is a lack of job clarity which engenders low morale among some staff. Further, staff are sometimes transferred to another post or division without considering the specialization the staff have.

#### 3.4.2 Staffing

One of the most pressing problems that have constrained EAD from developing into a fully functioning and credible organization has been its inability to attract well-qualified personnel. This problem has been exacerbated by cumbersome bureaucratic procedures in the Civil Service and in the Department of Human Resources Development Service, when it is necessary to approve and establish new positions for EAD. For example, the Policy and Planning Division has only one staff person, as two officers are in overseas training. In the meanwhile, an external senior policy advisor has done most of the work. A Canadian volunteer has been EIA technical advisor (TA) for 17 months, and only recently was assigned a full-time counterpart. The Legal Division is composed of one lawyer. The Information Division, which includes the EIS unit, is staffed by one environmental officer and one expatriate advisor, who for the past 2 years has had only a part-time counterpart. There has been little transfer of skills from Technical Assistance. All 6 divisions are now fully staffed. However, a large percentage of the staff is underqualified and needs Env/NRM skills and knowledge training.

#### 3.4.3 Staff Training

Many EAD officers have been recruited from other technical services, such as MOFFEA and MOAI. However, few have undergone Env/NRM training, although some have had some medium to long-term training (6 months to 3 years) in specialized areas such as environmental economics and planning and management. Three officers are currently studying overseas. Since these officers are gazetted, they retain their jobs with full pay. Vacancies are not filled for these staff in training during their absences. Instead, their work remains largely undone, as it is reassigned to others who are already over-extended.

A number of short (2-3 days) workshops have been organized around special themes for the EAD staff and for the focal points in the ministries. However, this short-term training has not focused on the operational needs of individual officers and no impact evaluation of the workshops has been conducted. In 1995, a short- and long-term Env/NRM training needs assessment was done, but its recommendations have not yet been considered.

### 3.5 Donor Assistance for Capacity Building in EAD and Related Agencies

EAD has been the beneficiary of training from UNDP, USAID and the World Bank. For example, the World Bank's (ITF/IDA) Environmental Management Project (EMP) is designed to strengthen the financial and administrative capacity of EAD, in addition to its technical functions. USAID is concentrating on strengthening EAD's Information Division through technical assistance and training under its MEMP project. UNDP has funded workshops and other short- and long-term training through its Capacity I project. However, there has been no evaluation of the impact of these workshops.

In addition, as mentioned earlier, UNDP is financing the salaries, support and training of 14 District Environmental Officers (DEO), with DANIDA providing funds for the remaining 11 DEOs. DANIDA is also proposing assistance to help improve EAD's capacity to coordinate and manage environmental affairs, to strengthen the Focal Point network, and to improve monitoring and evaluation. While there has been some assistance for capacity building of EAD staff through donor projects, it still tends to not be a priority.

Training of the technical personnel in the line ministries, who have the responsibility of implementing the National Environmental Policy and sector policies, has been largely neglected. The exception has been the training of 70 GOM officials and University faculty who have been trained in the use of Geographic Information Systems (GIS) and related technology under NATURE's MEMP component. In addition to receiving regular training in GIS, faculty from three colleges have received instruction and training materials to conduct their own courses in environmental information technologies. The impact of this training should be evaluated. Since UNDP and DANIDA plan similar assistance, overlapping or conflicting training methodologies should be avoided.

### 3.6 Recommendations for Strengthening Capacity

#### 3.6.1 For EAD

Experience has shown that in Malawi it is almost impossible to find people who have experience or training in environmental management. If there are such individuals in the private sector, EAD cannot compete for them. Therefore, EAD has engaged people who are very interested in the environment, but not necessarily proficient. In Malawi, one way to ensure capable staff is to provide additional training. It is very difficult to acquire the skills needed for good job performance solely by on-the-job training. The purpose of additional professional training is not only to improve

job performance, but also to ensure that Malawi creates a pool of qualified people for its needs in the future.

EAD management should undergo intensive management training, which would focus on leadership, personnel management, decision making, delegation of authority, rewards and sanctions, staff meetings, evaluation of staff, promotion, and other needed management skills.

Participatory organizational development training is also highly recommended. Such training should include defining a mission and vision for EAD, prioritization of EAD's activities, communication skills, defining lines of authority, development of job descriptions and work plans for all professional officers and divisions, and the organization. This would also include the development of a training plan.

Malawi urgently needs a pool of qualified environmentalists with various specialties to leadership and expertise now and in the future. USAID and/or other donors could increase their investment in training at the higher level. There must be more donor commitment to reduce Malawi's dependency on expatriate technical assistance. To achieve this, the GOM could require recipients of scholarship grants to return to their agencies for a minimum of 3-5 years, depending on the duration of their studies. USAID and other donors should also consider financing officers to replace those who are undergoing long-term training.

More attention should be paid to using professional trainers when conducting workshops. Training workshops and seminars that target specific subject matters designed to improve knowledge and job performance should be encouraged. Plans for more general workshops should be assessed as to their utility. Ways to improve effectiveness by targeting participation (to get key actors involved) should also be examined. Also, there should be reviews of training plans before, and an evaluation after, the program's completion. The impact of the training on individual job performance should be reviewed after 4-6 months.

EAD has sponsored many workshops. The relevance to real needs as expressed by the recipients has not been determined. There should be an evaluation of the impact of these workshops and other training programs. All EAD staff need to sharpen their Env/NRM management and coordination knowledge to be effective in this arena. EAD staff should be given the opportunity for more on-the-job training to become familiar with basic approaches to mitigation of Env/NRM problems such as agro-forestry and soil conservation techniques, EIA, EIS, family planning, agricultural and forestry extension, etc. This could be accomplished through field trips to demonstration sites and farms and communities in the Lilongwe area.

EAD should also consider adding an experienced training officer to its staff. Its Human Resources Development Officer (HRDO) is neither a trainer nor an environmental specialist. According to their job description, the HRDO is supposed to advise the department on the application of Civil Service rules and regulations, deal with disciplinary cases and other staff-related administrative issues. A staff training plan including budgetary requirements needs to be developed.

EAD's recruitment methodology also needs to be revisited. The present system does not necessarily identify the best-qualified individuals for specific position. Applicants should be provided detailed job description of the posts for which they will apply.

Finally, USAID should liaise and coordinate with other donors who are also involved in capacity building. Donors should collaborate to identify gaps and agree on a common training methodology.

### 3.6.2 For Implementing Ministries and Agencies

More intensive Env/NRM training is urgently needed for key staff in the technical ministries, as they are the people expected to take the lead in implementing the new national and sector policies. Most of these officers were well trained in related subjects. However, they require new knowledge and skills to help them integrate good NRM practices into their sector work and to help promote community-based NRM decision-making and management. USAID should consider provision of technical assistance.

### 3.6.3 For the Focal Point Network (FP)

EAD should review the present status of the FP Network with the goal of revitalizing it and making it more useful to EAD and its partners. Realistic and operational terms of reference should be developed in collaboration with the different NRM agencies. The need for resources for the FPs should be evaluated.

### 3.6.4 For the NCE and the TCE

The NCE and TCE should be strengthened. While both bodies are active and effective, they require support services of an effective secretariat. This would include provision of office space, recruitment of a well-qualified and computer literate secretary, and office equipment and supplies. The secretariat should be exclusively for the use of the NCE and TCE. In addition, one member of EAD staff should be trained in the preparation of Council minutes.

## Appendix A-4

# Urbanization and the Environment \*

### 4.1 General Background

According to the 1987 census, Malawi's population was 89% rural and 11% urban. In 1998, this has shifted. While Malawi still has an agricultural profile, 16% of the population resides in urban areas, far below most other developing countries. The urban population growth rate is 6.7% per year, more than double the country's overall population growth rate (3.2%). In the year 2000, Blantyre will have an estimated 1 million residents and Lilongwe about 500,000. Lilongwe is the fastest growing urban center, increasing at an estimated rate of 7% annually. Mzuzu and Zomba municipalities are also estimated to be growing at explosive rates. The proportion of urban population to the total is expected to almost double from 16% to 30% by the year 2005.

The majority of Malawi's urban dwellers live in high density/low income planned traditional housing areas, and/or illegal, unplanned and unserviced squatter settlements. Urban authorities do not have the capacity to respond to the spread of unplanned and unserviced settlements or the serious deterioration of environment resulting from increased pressure on resources, human habitat and social and economic infrastructure.

Access to vital services is not guaranteed for the urban poor. For example, over two-thirds of households use pit latrines, and almost half do not have access to safe drinking water. Water supplies (especially shallow wells and boreholes) in urban areas are at greater risk of being contaminated. In addition, household and industrial waste tend to be improperly disposed of, while urban agriculture on inappropriate sites has led to soil erosion, decreasing land quality and dust pollution. As a result, land use practices and waste management are causing significant damage to the urban environment.

Certain areas of Lilongwe are entirely undeveloped. The main road network divides the city into various areas zoned for housing, commerce and industry. Over 50 such areas exist somewhat segregated from each other. Residential areas are zoned according to densities, ranging from low and medium density to high density and traditional. Unplanned areas are forming at rapid rates around the core of traditional villages, resulting in fast-growing peri-urban areas which are high density and unserviced. In these areas, land is allocated by the village head person or chief. These areas are experiencing soil erosion, dust pollution, and lack of access to clean potable water and sanitation facilities, which poses a serious threat to public health. Urban agriculture, particularly the growing of maize, is widespread.

### 4.2 Access to Land

There is unprecedented growth in the unserviced/unplanned areas challenging traditional planning tools and methods of rigid outline zoning schemes and outdated zoning and city masterplans. There are three land tenure systems: public, freehold (public and private) and customary. The fast growing squatter developments in Lilongwe are clear evidence of the lack of surveyed plots in the

city. Approximately 78% of the population live in traditional housing areas, both planned (44%) and unplanned (34%).

Public land is administered by the Ministry of Lands and Valuation and allocated through the District Commissioner (DC). For land to be allocated, a layout has to be prepared by the Town Planning Committee and the area has to be surveyed by the Surveyor General. Due to lack of finances, plots are usually unserviced. Land is allocated based on layout only. To obtain land, individuals apply through the DCs and applications are then considered by the allocation committee. The procedure is bureaucratic, tedious, cumbersome, time consuming, and confusing for many to understand. Plot allocations are on leasehold of 21, 33 and 99 years.

Customary land is held in trust for the people by the President, who delegates authority to the chiefs. The land is commonly held and distributed by local chiefs. In theory, customary land should not exist in a municipality. However, in reality, much of the land in unplanned settlements is allocated using customary practices. Although under these practices each person has recognized ownership, it cannot be traded, as it can be re-assigned to another person. In Lilongwe, 34% of the population live in unplanned areas on customary land. These areas are often extensions of indigenous villages on the outskirts of town and serve as reception areas for the urban poor who fail to acquire land through normal channels.

In the absence of any land registration system, the same plot can be sold twice, leading to serious land disputes. In addition, the lack of ownership leads to neglect and thus to environmental degradation. The above mentioned system, combined with rapid population growth, has led to a situation where the demand for residential and commercial plots far outstrips the capacity of delivery.

### 4.3 Employment

The economic and industrial base of Lilongwe is narrow, providing employment to only 30% of the eligible work force. The majority of those employed work in the government sector. The poor tend to derive their incomes and livelihoods from multiple sources. This is largely due to the existence of an informal sector (consisting of petty trading, tailoring, beer brewing, car repairs, food vending, tin smiting etc) in which about 41% of households are involved. Other sources of income for poor urban dwellers include rents, remittances and, for a few, pensions. Coping mechanisms include borrowing food, using micro credit at exorbitant prices, pawning, prostitution and stealing.

### 4.4 Credit

Many households are forced to take a loan in case of a crisis. Since ordinary banking loans are not available to this group of people, they are dependent on private lenders who may charge them up to 100% interest per month. The system of micro-credit is as yet not well-developed in Malawi.

The only donors which seem to be active in this field are the European Union (EU) and GTZ. The EU has launched two schemes. The micro-project scheme is intended to provide small entrepreneurs with start-up capital for their plants, including tools, machinery and the workshop

building. However, the loan cannot be used for the purchase of material stocks or to cover other running costs. The EU's Gender Credit Scheme provides loans for women only. Under this scheme, loans can be used for starting up new income generating activities, and it can cover both plant and materials.

#### 4.5 Water and Sanitation

In urban areas water is supplied through statutory bodies, the Lilongwe Water Board and the Blantyre Water Board. However, only 69% of the urban population have access to piped water. In unplanned and low-income areas, only 60-70% have access to safe potable water, mainly in the form of boreholes and shared stand pipes. Contamination of water arising from poor sanitary conditions is compounded by the improper disposal of wastes. Poor maintenance of sewers results in overflows, leading to severe pollution of surface water resources.

The contamination of boreholes also is affected by the sludge of nearby pit latrines. It is estimated that 94% of urban households have some form of toilet, of which only 15% are connected to a waterborne sewerage system and 15% to septic tanks. Many of these systems overflow, posing environmental consequences for the population. About half of all illness in Malawi is attributed to waterborne diseases. Biological contamination is thus a serious concern, affecting rivers and other water sources.

#### 4.6 Solid Waste Management

Urban areas lack adequate solid waste collection systems and disposal facilities. Solid waste is mostly collected by the city councils in central areas and permanent housing areas. Inadequacies are most severe in traditional and unplanned housing areas. In these areas very few households have rubbish disposal pits. Most domestic waste is thrown away to sites where children will scavenge, and rats, cockroaches, and flies proliferate. Thus, diseases can spread easily. Some uncontrolled burning of wastes is practiced on site.

There are no established land fill sites and wastes are dumped in open quarries, forest reserves, abandoned roads, etc. This rudimentary solid waste collection and inadequate disposal method gives rise to odor, dust, pests, scavengers, pollution of surface and ground water sources, and smoke and fire hazards.

In addition, thousands of tons of industrial waste are discarded every year, and this amount is increasing. Industrial waste in liquid form is usually discharged into the sewerage system or river. If in solid form, it is generally dumped on landfills and, if in worse condition, it is dumped on a tip within the factory premises.

## 4.7 Energy

Fuel wood is the country's main source of energy, and is used as household fuel by 90% of the population. 40% of all wood is used as primary fuel by the tobacco industry. The largest source of fuel wood is indigenous forests on customary land and is extracted free of charge. Fuel wood consumption exceeds sustainable yield by 30%. In poor urban areas, wood is the only fuel for cooking, and many households have to pay for it.

## 4.8 Policy

The proposed National Housing Policy shifts the focus for responsibility of implementing and sustaining housing programs from Government to the private sector, i.e. households, communities and the corporate sector. The process of land delivery will be decentralized to take advantage of the potential of local authorities and communities to set their own priorities and to mobilize resources. Access to housing by all income groups is the first of three principal policy goals. Others are decentralization and improved land markets. The new policy attempts to build an enabling environment for a larger range of initiatives in the urban sector.

The Presidential Land and Policy Reform Commission was established to provide an institutional framework to investigate the impact of existing land policies on access and land use, define property rights, gain population's views and perceptions on issues related to land as well as provide recommendations for future sound land use allocation and utilization. The commission has carried out an extensive public information campaign and commissioned studies on economic, social, legal issues associated with land administration and access to land. There are eight studies altogether. The studies underway include Estate Land Utilization Survey, Customary Land (including inheritance and the smallholder subsector), Public Lands and Policy reform. All these studies are focused on the agricultural sector. A study to address issues of security of tenure and poverty, institutional assessment and the role of Malawi Housing Corporation (MHC) and Lilongwe City Council would also be very useful.

## Appendix A-5

# The Population/Agriculture/Environment Nexus

### 5.1 General Background

Malawi is one of the most densely populated countries in sub-Saharan Africa with a population estimated at about 12 million (1998) and an annual population growth rate of 3.2%. This growth rate can be attributed to the high total fertility rate, estimated at 6.7 births per woman, and a declining, though still very high, mortality rate. The population growth rate is expected to decrease to about 2.9% by 2020 (World Bank Data).

The high rate of population growth is one of the main factors slowing down the attainment of development objectives, particularly that of poverty alleviation. Population pressure on land resources has increased over the past several years. Population density ranges from about 110-200 persons per square kilometer of arable land.

With the present population growth rate at 3.2% annually, and expected GDP growth of 3-4% per year between 1998 and 2020, over the long-term the economy will be unable to satisfy the need for schools, health infrastructure, housing and other essential social services. It will also be impossible to attain food self-sufficiency and food security or to provide enough jobs for the populace. Unemployment and under-employment will increase significantly. With smallholder plots steadily decreasing in size and large numbers of younger people having to leave the farm to seek employment elsewhere, a large landless class will emerge, which may, in turn, have a harmful effect on the socio-political stability of the country. Youths entering the labor force (100% of 16-year old males and 50% of 16-year old females) are expected to increase from about 200,000 in 1998 to 430,000 by 2020.

In Malawi, 14% of births are born to women under 20; 61% are less than 3 years apart, and 58% of women aged 40-49 years old have had at least 7 children. As a result, high-risk births are widespread, leading to very high levels of infant, child and maternal morbidity and mortality.

The negative effects of high fertility and short birth intervals are felt intensely at the level of the individual household. Nevertheless, many women feel the need to have more children as insurance against high infant mortality; to provide extra pairs of hands for household labor; and to support their parents in old age. Additionally, among many men there is the feeling that having many children indicates virility. Similarly, for women there is a feeling of worthiness. The result is that the household dependency burden increases, intense pressure is exerted on land resources, on available food supply, on housing, sanitation and water supplies, and on household disposable income.

Rapid population growth is one of the main reasons for environmental degradation throughout the country. Forest resources are being depleted beyond sustainable levels, with rates of deforestation estimated at about 3.5% annually. Soil erosion and loss in soil fertility are widespread. If present trends continue, the population of Malawi will reach an estimated 22.5 million by the year 2020. At the same time, per capita food production will diminish from 185 kg per person per year to 142 kg in 2020. The 1:1.52 dependency ratio in 1998 will increase to a ratio of 1:1.08 in 2020.

Malawi faces a number of problems with respect to the health and nutritional status of the population, with large proportions (est. 60%) of the population unable to satisfy basic caloric needs. 60% of the rural and 65% of the urban population live below the poverty line. Almost 50% of children under 5 years of age are stunted, and half of them are severely malnourished. This situation is worsened by the high population growth, escalating environmental degradation and a worsening HIV/AIDS crisis.

## 5.2 The HIV/AIDS Factor\*

Despite a fairly good distribution of health facilities in Malawi, the health status is very low. Infant and under-5 mortality rates are particularly high, at 134 and 234 per 1000 live births, respectively. Almost one out of every four children die before they reach their fifth birthday. Maternal mortality is high, and as many as 2700 women die every year of pregnancy-related causes. The low health status is also aggravated by the worsening HIV/AIDS crisis.

The HIV/AIDS pandemic has hit Malawi particularly hard. Malawi's National Aids Control Program (NACP) and WHO estimate that 84,000 people died of AIDS by 1993, and 114,000 by 1994. It is estimated that annual AIDS deaths will peak at 65,000 a year in 2005, and baby AIDS deaths may reach over 20,000. In 1998, total AIDS deaths are estimated to be about 55,000, peaking in 2005 and then declining to about 40,000 in 2020. By that time, however, about 2.1 million people will have died due to AIDS. AIDS orphans (either parent has died of AIDS) will cumulatively reach 700,000 by the year 2020.

The adult HIV prevalence rate in 1995 was 11.9%; it will increase until 2002 and then slowly decline. Due to diverse socio-cultural factors, there are a number of unreported and/or undetected AIDS deaths. This implies that Malawi's HIV/AIDS prevalence rates could be significantly higher. Reported cases of AIDS are believed to represent only a fraction of the true number of cases, particularly in Malawi, where the case definition of AIDS requires confirmation by blood test. Furthermore, HIV/AIDS infections are not often openly discussed and when an AIDS death occurs, another disease is often blamed.

The physical, economic, sociocultural and psychological impacts of the pandemic are already being felt. They include an increasing number of orphans and the loss of young men and women in the economically active age-groups due to AIDS-related deaths.

## 5.3 Policy

The Malawi Government, aware of the importance of the population and health problems in the country, has introduced a number of measures that have contributed to improving the health of Malawians. These efforts, however, not been adequate to check population growth. For instance, the contraceptive acceptor rate in Malawi is still very low, at an estimated 14% in 1998.

To provide a guiding framework, the Government formulated and adopted a National Population Policy (NPP) in 1994. This policy proposes to lower fertility as well as infant, child and maternity death rates. It focuses on reducing adolescent marriages and teenage pregnancies. It also seeks to reduce the high rate of urbanization and enhance labor force absorption. The NPP also highlights the strategies that must be implemented in order to achieve the goals of the policy.

Several international and bilateral donors are working in close collaboration with the Government to implement the policy. These include UNSAID, UNISEX, UNFPA, ODA, the World Bank, GTZ, and JICA.

## 5.4 Recommendations

USAID, UNFPA and others are firmly committed to helping Malawi improve its health status and reduce rapid population growth. While there are a number of population/health projects being implemented in Malawi, the effort is still inadequate. The latest update study of static health facilities in 1995, conducted by the National Welfare Council of Malawi (now the National Family Planning Council) indicated that there are 748 such facilities in Malawi, but only 393 of them provided family planning services. In view of the pessimistic population projections for the next two decades and beyond, Malawi's family planning program should urgently be strengthened. This could begin with reinforcing family planning information, education and communication. Family planning services should be offered in the 355 (est.) facilities not currently doing so, and additional staff and community-based workers should be trained.

## Appendix B-1

# Team Composition

Paul Bartel is responsible for advising the Africa Bureau on the use of tools, approaches, and methodologies which promote the effective use of information for decision-making which link resource managers with policy-makers. He is trained as a natural resource economist and has had extensive NRM experience in arid and semi-arid zones of Africa, living in Morocco, Somalia, Mali and Botswana. He has done field work in monitoring food security, community development, applied socio-economic research in range management, and has managed a major CBNRM project in Botswana.

Glyvyns Chinkhuntha served as Rural Livelihoods Advisor. He is owner/manager of Freedom Gardens, a horticultural farm operating for 15 years on reclaimed swamp land. It uses natural resource management practices and methods of production based on traditional initiative and innovation to produce vegetables, fruits, grains and flowers. Previously, Mr. Chinkhuntha worked for 10 years as a civil servant in the Malawi Government as Administrator and in the Malawi agricultural marketing parastatal (ADMARC) as Marketing Manager. He also has consulted for GTZ and the EU. He holds certificates in Commerce, Accountancy, English Language and Geography from London University, and 2 'A' Level certificates in Economics and Statistics.

Michael Furst has been an independent consultant for the past 9 years, working principally on environmental planning and management issues. Previously he was a senior rural development specialist at the World Bank. For 6 years he was the Bank's representative in Mali. After returning from Mali, Furst joined the Africa Region's Environmental Division before retiring in 1989. Before joining the Bank, he served 9 years in the Peace Corps as Country Director in Africa and Asia. Furst was trained as a agronomist. Before his work with the Peace Corps, he farmed field and fruit crops in the Central Valley of California and was also an instructor of vocational agriculture.

John Griffin, currently living and working in Malawi, has over ten years of professional experience, seven of which have been focused on technical and advisory assistance in community-based natural resources management and protected area management in Africa and Asia. He has succeeded in facilitating the creation of an enabling environment, working with a wide range of stakeholders on developing organizational and institutional capacity conducting strategic planning, enhancing participatory extension approaches and providing training. He has fostered collaborative resources management by conducting awareness and mobilization campaigns, integrating indigenous knowledge systems, promoting partnerships and collaborative management agreements and developing sustainable utilization practices in which benefits are achieved and livelihoods are improved.

Christopher LaFranchi is an independent contractor with seven years of experience focused primarily in two areas: environmental/natural resource economics and policy analysis, and community-based natural resource management and conservation. He recently worked for one and one-half years in Namibia on the World Wildlife Fund's Living in a Finite Environment Program (LIFE) where he studied subsistence use of natural resources, small-scale agriculture, and natural resource-based enterprises. Currently, he is developing a methodology for analyzing the costs/benefits

associated with several development pathways in the Marovo lagoon region of the Solomon Islands. He resides in San Francisco, California.

Laurel Abrams Neme served as Team Leader. She previously worked as an International Economist for the US Department of the Treasury's Office of Multilateral Development Banks (MDBs), where she oversaw the social and environmental aspects of projects and policies at the World Bank Group and regional development banks. In particular, she advised the MDBs on institutional issues and worked closely with US Executive Directors, US and foreign government agencies, non-governmental organizations (NGOs) and affected people to ensure appropriate incentives and structures were in place to facilitate public participation in the design and implementation of development programs. Dr. Neme received her doctorate in Public Affairs from Princeton University.

Anthony Pryor, Natural Resource and Energy Policy Advisor, has worked for USAID's AFR/SD/PSGE division since 1990 on various natural resource activities throughout Africa, particularly in the areas of renewable energy, environmental planning, re-engineering and support to USAID missions in East and Southern Africa.

Barry Rands served as Natural Resources Specialist, bringing 15 years of Africa experience with him, having worked with non-governmental organizations (NGOs) in Chad, Somalia, Mali, and Rwanda. He also worked as a Natural Resources Management Advisor to the USAID mission in Niamey as a PSC from 1990-1994. His work with NGOs has given him extensive experience in field level project management and implementation. With USAID he was involved in the promotion of enabling conditions for improved natural resource management at the national level. He recently returned to the Sahel to participate in assessments of natural resource management programs in Niger in 1996 and Senegal in 1998.

Asif Shaikh has 20 years of experience in natural resources, environment, energy and development economics, during which time he has made widely recognized contributions to environmental policy and macro-economic linkages, and natural resources and environmental economics methodology, incentives and quantitative analysis techniques. Proven experience in managing multidisciplinary teams for development projects. As President and CEO of IRG, an international consulting firm in natural resources, environment and energy, he manages a company of 90 professionals in the United States, Asia, Africa and Latin America, as well as major long- and short-term programs for USAID, the World Bank, and other clients. With professional experience in over 30 developing countries, is an internationally respected lecturer on topics such as sustainable development, environmental policy, economics, and natural resources. Four years of university teaching experience; has taught numerous workshops, seminars and short courses, and lectured extensively throughout the world.

Bob Winterbottom is a NRM / Environmental Policy Specialist with 25 years of experience in formulating and implementing sustainable development investment strategies, including environmental action plans, tropical forestry action plans and desertification control plans. He is currently a Senior Manager in the Washington office of International Resources Group (IRG), and previously served as a long term technical advisor for agroforestry, soil and water conservation, natural forest management and community-based NRM programs in Burkina Faso, Niger and Rwanda.

## Appendix B-2

# Terms of Reference

## 2.1 Background

Agriculture is the primary source of food, energy, employment and income for approximately 85% of all Malawians. Poverty is widespread, with nearly 60% of households living below the poverty line. Most households lack the resources and support to undertake sound agronomic and animal husbandry practices which would provide increased incomes and improve food consumption. As population has grown, the resource base has come under increasing pressure. These problems have created nationwide pressures on land, water and the survival of Malawi's biodiversity. Environmental degradation, resulting from rural and urban pressures, is eroding the capacity of Malawi's natural resource base to meet national requirements for food security and income growth.

Malawi's ability to respond in a positive manner to natural resource challenges is constrained by the cross-sectoral nature of natural resource problems, overly centralized administrative procedures, weak legal structures, the general absence of public environmental education, and severe budgetary limitations.

In May 1994, almost 30 years of autocratic rule ended when Malawians voted for their first democratically elected parliament and president. The new government has explicitly recognized the need to address natural resource management issues. One major result has been the preparation in 1994 of Malawi's first National Environmental Action Plan (NEAP). Since then, Malawi has continued to make important progress in developing a coordinated approach to environmental management. A National Environmental Policy was adopted in February 1996, then in August 1996, the Malawi Parliament enacted a legal Act to make "provision for the protection and management of the environment and the conservation and sustainable utilization of natural resources." Coordination of environmental matters and implementation of the policy and Act is the responsibility both of the Environmental Affairs Department within the Ministry of Forestry, Fisheries and Environmental Affairs and the National Council for the Environment. An attempt at improving coordination has been the building of a results framework to address problems in a sustained, long-term fashion.

USAID/Malawi's Strategic Objective (SO) 2, to increase the sustainable use, conservation and management of Malawi's renewable natural resources, embodies a broad partnership approach involving several Government of Malawi (GOM) agencies, Non-governmental organizations (NGOs), the commercial sector and donors. Together, they have developed a results framework which identifies the critical Intermediate Results (IRs) necessary for achieving the SO. The USAID/Malawi program focusses on five of these IRs.

### IR 2.1: Comprehensive Policy and Legislative Framework Established

The basic and unifying element of all other intermediate results, this IR is expected to result in the necessary policies and legislation which will encourage and facilitate activities in support of increased sustainable use of natural resources. Specific attention is focussed on incorporating into

policies a broader role for communities, NGOs and the commercial sector in managing natural resources. Participating sectors include fisheries, forestry, parks & wildlife, water resources, lands (in the context of land tenure) and agriculture (soil conservation).

### IR 2.2: Capacity of National NRM Institutions Strengthened

This IR is being addressed through the development and strengthening of a national environmental monitoring service; improved capacity for planning, budgeting and allocation of resources; and the creation of an endowment fund to provide a sustainable source of financing for critical natural resource requirements.

### IR 2.3: Service Programs Improved

USAID/Malawi funded activities in support of this IR are primarily concerned with expanding the adoption of appropriate agroforestry and soil conservation practices through partnerships with government, NGOs and the private sector.

### IR 2.4: Capacity of Communities to Manage Natural Resources Improved

A planned activity in support of this IR is designed to broadly strengthen community based natural resource management (CBNRM) processes in Malawi, leading to improved performance of ongoing and planned field programs of implementing partners (NGOs, community groups, government and donors). Key objectives include: a) establishment of functioning liaison, communication and information exchange mechanisms between/among the numerous donor and government-funded CBNRM programs; b) strengthened community mobilization skills within NGOs, community groups and government; and c) policy and legislative reform in favor of CBNRM.

### IR 2.5: Capacity of NGOs/PVOs Strengthened

This IR contributes to all the higher level results noted above. It reflects the importance of the NGO/PVO (Private Volunteer Organizations) sector in, for example, environmental monitoring, the provision of agroforestry support services, supporting policy change, and enhancing the capacity of communities to sustainably manage their natural resources.

## SO2 Funding Arrangements

The funding vehicle for SO2 is the Natural Resources Management and Environmental Support (NATURE) Program. Financial assistance for SO2 is divided into two components: Government of Malawi budgetary support of \$30.5 million (“non-project assistance” or NPA) and activity assistance of \$9.5 million (traditional “project assistance”).

Budgetary support/NPA is geared toward the development and implementation of a policy and legislative reform agenda; strengthened capacity of institutions through improved coordination; implementation of a results driven natural resource management program, including the establishment

of a performance based budgeting system for priority natural resource management activities; an achievement of sustainable financing through the creation of an endowment fund. Funds are disbursed in tranches upon the Government's satisfactory achievement of agreed upon milestones (conditions precedent or CPs). The first tranche disbursement of \$5 million was made in February 1997.

Project or activity assistance provides technical and management assistance for the NP A activities noted above and for financing complementary efforts primarily in such areas as agroforestry/soil conservation, environmental monitoring, public land utilization, and community based natural resource management. Technical/management assistance is currently, or is planned to be, provided through four contracting mechanisms.

- The University of Arizona (UOA) has a cooperative agreement with the following objectives: a) build capacity in environmental technologies to answer questions about environmental conditions in specific situations that can be used to guide GOM mitigation actions; b) build broader technical and scientific capacity through training and research to support and guide future policy decisions; c) develop a prototype environmental information system (EIS) and a prototype data base which will link to a future national EIS; (d) support the establishment of a comprehensive policy, legislative and institutional framework governing natural resource management; and (e) support introduction of results-driven management practices and procedures in the environment/natural resource management sectors.
- Washington State University (WSU) has a cooperative agreement, the objective of which is "to increase farmer adoption of proven agroforestry and soil conservation practices." This is to be accomplished through strengthening the delivery of extension services and farmer-level agroforestry research. The WSU strategy for achieving its objective involves the establishment of performance-based partnerships with government, NGOs, community groups and the private sector which are geared, as appropriate, toward: a) improved research and extension services; b) increased quantity and quality of agroforestry germplasm and planting materials; and c) strengthened "partnership networks" which embrace such activities as information sharing, coordination, training, technical services and monitoring and evaluation.
- Two contracting mechanisms will support the community based natural resource management (CBNRM) IR briefly described above. In the short-term, SO2 "bought into" USAID/Malawi's ongoing Services in Health, Agriculture and Rural Development (SHARED) activity, which is managed under Strategic Objective 5 (Democracy and Governance). This involved transferring \$200,000 to SHARED to assist local NGOs to implement community based natural resource management activities. In the longer term, the major vehicle for supporting CBNRM will be through a five year institutional contract, which is currently being advertised.

## Rationale for Undertaking an Interim Assessment of SO2

SO2 is the newest of USAID/Malawi's strategic objectives, yet the elements of SO2 are a blend of "old" and "new" activities. The University of Arizona and Washington State University cooperative agreements originally began as environmental monitoring and agroforestry activities under USAID/Malawi's agricultural portfolio ("Increased Agricultural Incomes on a Per Capita Basis"). During the process of Agency reengineering and the adoption of SO2, both cooperative agreements were moved to SO2 and modified to better reflect the needs of the new environmental strategic objective. "New" activities such as policy and legislative reform, strengthening of environmental institutions and community based natural resource management were added to their original focus.

At this point in program implementation, it is desired to revisit the original concept for SO2 and provide a determination as to whether or not the current strategy and indicators are appropriate vis-a-vis the overall objective, and if the current blend of activities is appropriate to the strategy and attainable during the current time frame. Additionally, not only have there been significant policy and institutional changes since program initiation, but there have also been important lessons learned. It is critical that the implications of changes in the implementing environment be understood and that lessons learned during implementation be articulated and integrated into the program as early as possible.

There is a general concern that the current strategy may be too broad in its scope and unrealistic in terms of what can be accomplished. A review and perhaps re-orientation of the strategy is the best starting point for subsequently adjusting "activities" in accordance with strategic modifications. Such a strategic assessment requires a review at the activity-level in order to draw upon lessons learned to better inform strategic considerations, which will lead to improved activity level performance.

## 2.2 Objective

To develop substantive and detailed recommendations regarding the scope and strategic approach of SO2, with respect to the national NRM framework, policy choices and directions. Analysis will be based on lessons learned to date during program implementation, an understanding of the underlying demographic, economic, market and environmental trends in Malawi, and on the appropriateness of the current USAID SO2 strategy and activities vis-a-vis desired results and implementing environment.

The findings and recommendations of this assessment will provide USAID and the GOM with guidance for re-orienting/restructuring program/project activities, conditionality, and funding levels.

To meet this objective a number of factors will require analysis. Among them are:

- An understanding of the potential evolution of natural resources and environmental (NRE) issues over a twenty-year time frame, given underlying demographic, economic and market trends.

- A review of current strategic framework for NRE sector planning, and potential changes, in light of (a) the underlying trends and (b) the economic development tradeoffs.
- An identification of: (a) the key choices for public policy which can positively influence NRE evolution, (b) the significant threats to NRE sustainability and to economic development likely to occur within this longer-term perspective and (c) the principal new opportunities which should be the focus of policy attention.
- An understanding and definition of short and medium term policy options in light of long-term trends and underlying transformations which are taking place. The effort is, decidedly, not intended to result in a “futures study.” Hence it does not seek to predict what will happen in twenty years. Instead, the focus is on identifying the “inevitable” medium term trends (particularly population and market development) and on understanding how these underlying trends are likely to shape/modify producer and consumer strategies and policy choices.

## 2.3 Statement of Work

### Summary

In addition to the above mentioned trend analysis, the specific tasks for which the study team will be responsible for completing are described in the following section. The tasks cover: progress under each of the IRs and appropriateness of the results framework and indicators, as well as monitoring and evaluation, program financing, and recommendations on program direction. While every attempt has been made to ensure that this list of tasks is thorough, the study team is encouraged to identify other issues that should be addressed and incorporate these issues into the assessment.

As noted above, this effort is geared to analyzing and making recommendations related to the SO2 results framework and indicators. This should include the identification of important linkages with other Mission SOs. The study team shall also identify “targets of opportunity” for concentrating efforts, and shall examine the degree to which activities are mutually reinforcing and integrated. One area to examine in this vein, shall be the complementarity of “project assistance” activities and “non-project assistance” efforts. Similarly, issues relating to trade offs between assistance to government vis-a-vis the non-government sector must be identified and addressed.

## Specific Tasks

In general, the study team shall make a determination as to whether or not the intermediate results of SO2 contribute directly and adequately to the attainment of SO2's strategic objective. The review shall specifically address the following:

### IR 2.1 Comprehensive Policy and Legislative Framework Established

- (1) Analyze the progress made to date on policy reform measures, giving particular attention to the extent to which reforms are contributing to a broader role of communities and the private sector as partners with government in managing natural resources.
- (2) Does SO2 continue to fit current Government of Malawi policy directions and strategy? Specifically, is it probable that the program will achieve the result of “establishment of a unifying, comprehensive policy and legislative framework governing natural resources”?
- (3) Review the policy-related conditionalities and analyze their current validity. Are there policy reform areas that the program has missed that will help achieve program objectives? Are some policy areas no longer relevant? Which policy-related “non-project assistance” components are critical for achieving “increased sustainable use, conservation and management of natural resources”?
- (4) Determine the principal constraints to achieving effective implementation of the CPs. Based on this review, make recommendations for re-orienting or adjusting the CPs for the remaining tranches in order to achieve positive impacts, to facilitate implementation and to more fully engage the Government of Malawi in the substance of policy reform and implementation.

### IR 2.2 Capacity of National Natural Resource Management Institutions Strengthened:

- (1) Review the effectiveness of the government organizations responsible for coordinating and monitoring environment and natural resource activities as set forth within the National Environmental Policy and Environmental Management Act. This will include the cooperation of the Environmental Affairs Department and the National Council for the Environment. Provide a determination as to the adequacy of these organizations to carry out their mandates. Identify critical areas where these organizations can be strengthened. Are these being adequately addressed by other donors?
- (2) With regard to improving government capacity to implement and manage an environmental monitoring program, does the government and SO2 program reflect an appropriate strategy for environmental monitoring? Based on lessons learned, and other analysis resulting from this review effort, how might this strategy be strengthened?
- (3) Identify lessons learned and recommend means of addressing identified problems with regard to establishing an endowment fund for financing environment and natural resource management activities, and for piloting a performance based budgeting program within appropriate line ministries, such as the Ministry of Agriculture and Irrigation and the Ministry

of Forestry, Fisheries and Environmental Affairs. Do these activities remain as relevant today as they were during the design phase of the NATURE program?

### IR 2.3 Service Programs Improved:

- (1) Is the current strategy of the SO2 agroforestry activity, which emphasizes national level adoption of agroforestry practices, appropriate with respect to the SO2 objective? What lessons have been learned to date and what modifications, if any, to this IR and activity are warranted?

### Cross-Cutting Issues

#### Scope of the Intermediate Results:

The SO2 results framework requires review and revision. In so doing, the SO2 team and partners are giving attention to criteria such as increased concentration, integration, practicality and impact. In reviewing the existing and (planned modifications) to the framework, the study team shall address the following types of questions:

- (1) Are the intermediate results an effective mix, which will lead to the attainment of the objective?
- (2) Is the mix of funded activities appropriate for the attainment of the intermediate results? Should other or new activities be considered? Should any of the current activities be scaled back or dropped altogether?

#### Other

- (1) To what extent are increasing population and increasing urbanization a factor with respect to SO2's strategy, and what recommendations can be made for addressing these issues?

#### a. Relationship to other Donor Programs:

- (1) Briefly review the environmental sector support provided by key donors and provide a determination as to the complementarity or overlap of these efforts with respect to USAID/Malawi's SO2 program. An illustrative list of some donor-funded activities follows:

World Bank:	Environmental Monitoring, CBNRM, Protected Area Management
European Union:	Agroforestry, CBNRM
UNDP	Endowment, Policy Reform, Decentralization
DANIDA:	Environmental Reporting
ODA:	Mulanje Trust Endowment
GTZ:	Parks/Wildlife Policy, CBNRM

## Program Financing and Time Frame

- a. Examine the ratio of “non-project assistance” financial resources to “project assistance” financial resources. Provide recommendations as to how additional “project assistance” financial resources might be used to better support “non-project assistance” objectives.
- b. Make a determination as to the adequacy of “project assistance” funding (\$9.5 million) with respect to obtaining the objectives of the various activities (environmental monitoring, agroforestry and community based natural resources management). What amount additional funding may be necessary? Would re-allocation of current funding be more effective with respect to activity objectives?

## Program Direction

- a. Provide recommendations for changes to program orientation and future program development, taking into account lessons learned and experience to date; an analysis of opportunities for concentrating efforts; the desire for a more cohesive, integrated set of program activities; and the perceived needs of program beneficiaries.
- b. Provide specific recommendations on improving:
  1. The results framework, intermediate results and indicators;
  2. The CPs, the phasing of the tranches and the integration between program supported actions and activities (i.e. “non-project assistance” and “project assistance”);
  3. Financing and time frame for accomplishment of the strategic objective.

## 2.4 Reports

1. The study team and the SO2 team will within the first two days of arrival clarify and finalize any issues with respect to the content and implementation of this terms of reference.
2. The study team shall submit to USAID/Malawi and to the GOM, in form and substance acceptable to the Mission, ten (10) copies of a typed English language text draft assessment report including an executive summary which describes the results of the analysis and examination set forth in the “Statement of Work.” The team will also present an oral summary of the report to a USAID/GOM review meeting, which will be scheduled by the USAID Mission before the departure of the assessment team.
3. Taking into consideration USAID and GOM comments on the draft assessment report, the study team shall finalize the report and submit twenty (20) copies of a typed English text final report (with the computer disc) to USAID/Malawi within two (2) weeks of the team leader’s departure from Malawi. Of the twenty copies, ten (10) copies must be sent via DHL to USAID/Malawi. All reports on computer diskette must be in WordPerfect 5.2 format.

## 2.5 Technical Direction/Assessment Methods

1. Technical direction during the performance of this delivery order will be provided by USAID/Malawi Strategic Objective 2 team leader or his/her designee.
2. Background Reading and Interviews. The assessment team will provide a bibliography of the documentation reviewed as part of the final assessment report.

## 2.6 Logistic Support

All logistical support shall be provided by the Contractor, except for airport pickup, which, upon arrival in Malawi, will be provided by USAID. Neither USAID/Malawi nor the U.S. Embassy will provide cashier services.

Contractors do not have access to health facilities at the U.S. Embassy. On a fee basis, health services are available through the British Embassy at the rate of 50 British pounds for a doctor's consultation; 35 British pounds for each follow-up visit; 14 British pounds for a consultation with a nurse; 58 British pounds for an outcall by a doctor; 25 British pounds for an outcall by a nurse; lab fees will vary according to test required; and medication is provided at cost plus 50 percent; all prices are subject to change. Personnel must register with the British Embassy health clinic upon arrival, if they wish to avail themselves of the clinic's services.

Medical evacuation insurance, such as SOS, is required.

## Appendix B-3 Persons Contacted

### USAID/MALAWI STAFF

Kiert Toh, Director  
David Himelfarb, SO2 team leader  
Wayne MacDonald  
Steve Machira, SO2 team  
Jim Dunn, SO1 team leader  
Joan LaRosa, SO3 team leader

### USAID/WASHINGTON

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Tony Pryor, AFR/SD/PSGE  
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Mike McGahuey, AFR/SD/PSGE  
Walter Knausenberger, AFR/SD/PSGE

### NATURE PROJECT IMPLEMENTORS

Kent Burger, University of Arizona, Chief of Party and Environmental Monitoring Specialist  
Yusuf Mohomoud, University of Arizona, Environmental Science Advisor  
Tony Seymour, University of Arizona, Policy Advisor  
Dr. J. Ronald Eastman, Director, Clark Labs for Cartographic Technology and Geographic Analysis/IDRISI Project, Professor, Graduate School of Geography, Clark University  
Mathilde Snel, Clark University  
Nicholas Haan, Clark University  
Jan C. Noel, Director, International Programs/Development Cooperation, Washington State University  
Dr. W. Trent Bunderson, Project Coordinator/Ecologist, Malawi Agroforestry Extension Project  
Mr. Ferko Bodnar, Deputy Project Coordinator, Malawi Agroforestry Extension Project  
Ian Hayes, Rockefeller Foundation  
Scott Simons, Advisor, Ministry of Agriculture and Irrigation  
John Engel, ACDI  
Thomas Carr, ACDI

## GOVERNMENT

### Ministry of Forestry, Fisheries and Environmental Affairs

David Kambauwa, Principal Secretary

Kenneth M. Nyasulu, Director, Department of Forestry and SADC Forestry Sector Technical Coordinator (SADC FSTCU)

Mr. Paulos Mwale, Assistant Director of Forestry (Extension Service)

Mr. Samuel Kainja, Assistant Director of Forestry (Planning, Training and Research)

Mr. Shaibu A. Mapila, Deputy Director, Fisheries Department

### Environmental Affairs Department

Ralph Kabwaza, Director

Mr. M.K. Mwanyongo

Mr. E.M. Makawa, Legal Division

Mr. D.P. Kafere, Env. Officer

Mr. A.M. Banda, Outreach Division

Mr. W.M.M. Phiri, Information Division

Mr. S.P. Mkandawire, Outreach Div.

Mr. F. Mserembo, EIA

Mr. P. Somers, EIA (TA)

Mr. S. Maddox, Outreach Div.

Mr. G.S.G. Kulemeka, Procurement Officer

Dr. Z.M. Vokhiva, Project Coordinator

Mr. J.L. Palani, Proj. Coord.

Mr. GB. Msanyama, Accountant

Mr. R.N. Dzama, Human Resources Officer

Helen Hall, Financial Controller EMP/EAD

### Ministry of Wildlife and Tourism

Mr. John Mphande, Director of National Parks and Wildlife, Department of National Parks and Wildlife

Mr. Humphrey Nzima, Deputy Director of National Wildlife, Department of National Parks and Wildlife

### Ministry of Energy and Mines

Mr. Lewis B. Mhango, Principal Energy Officer, (Controller of Planning), Department of Energy

Mr. Fraser R. Phiri, Controller of Technical Services, Department of Energy

## Ministry of Agriculture and Irrigation

Dr. E.S. Malindi, Chief of Agricultural Services, Ministry of Agriculture and Irrigation  
Mr. Nyami Jaff Mulenga, Director, Land Resources Conservation Department  
Mr. Stephen Nanthambwe, National Coordinator, PROSCARP and MAFE, Chief Environmental  
Conservation Officer, Land Resources Conservation Department

## Other

D.G. Bauleni, Environment Officer, Electricity Supply Commission of Malawi (ESCOM)  
Peter Mwanza, Chairman, National Committee on Environment

## Malawi Social Action Fund (MASAF)

Mr. Sam Kakhobwe, Project Manager  
Mr. Charles Mandala, Head of Field Operations  
Bridget T. Chibwana, Information, Education and Communication Officer

## DISTRICT OFFICIALS

Mr. S.. Mandala, District Environmental Officer, Dedza  
Mrs. Georgina Kululanga, Forestry Assistant, Blantyre City Fuel Wood Project, Milare Station ,  
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D.A. Mthini, Land Husbandry Assistant, Ntcheu  
Mr. Sloans K. Chimatiro, Fisheries Officer, Fisheries Department, Zomba  
Mr. Masida H.C. Gondwe, Regional Parks and Wildlife Officer, Mzuzu  
Mr. Billy Vincent Chilambo, Game Scout, Vwaza Wildlife Reserve, Kazuni  
Mr. Faston M.B. Phiri, Game Scout, Vwanza Wildlife Reserve, Kazuni  
Ms. Stephanie Jayne, Vwanza March Wildlife Reserve, Kazuni  
Mr. Tommy Mhango, Senior Assistant, Parks and Wildlife Officer  
Mr. Sam Kamoto, Assistant, Parks and Wildlife Officer, Mzuzu Environmental Education Centre ,  
Mzuzu  
Victor F. Msiska, Regional Forestry Officer, Mzuzu

## NGOS/PRIVATE SECTOR

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### COMMUNITIES

Various. Not listed individually.

## Appendix B-4

# Documents Consulted

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See also: Bibliography for Appendix A-2

Community-Based Natural Resources Management Matrix

Activity - summary description, location	Subsector	Agro-ecological Zone/ Biophysical Features	Principal Local Stakeholders	NRM Practices	Observed Outcomes - Impacts			Constraints/ Problems Encountered	Enabling Environmental - Local Communities and Rural Producers have or perceive the following conditions (see key below):									
					Environmental	Economic	Democracy/ Governance		I	II	III	IV	V	VI	VII	VIII	IX	
Niger - Forestry and Land Use Planning (FLUP) and Energie II	Natural Forest Management	350-800 mm tiger bush and savanna woodland; degraded Combretaceae woodlands	Farmer-herders within a 50 km radius of major urban centers	Participatory approach to community-based management of natural woodlands, including both classified and non-classified forests  Organization of user-groups (e.g. wood cutter coops)  Access control, resource inventory and management planning, rotational harvesting	Steady increase in total area of managed woodlands, from 1,000 ha in 1985 to 350,000 ha in 1995.	In 1995 some 25,000 tons or 16% of total urban fuelwood supply marketed through community-based rural wood markets  Government recovery of revenues from fuelwood taxes increased from 10% to 60% totaling over 500 million CFA (\$1 million) in 1996	85 legalized recognized "marches ruraux" established in support of community user groups involved in harvesting and marketing of fuelwood as well as forest management planning: democratically decide on use of funds earmarked for village development activities (12 million CFA in 1995)	Villagers needed to reassert control over access and exploitation of local forest resources, in cooperation with Forest Service, in order to limit degradation from urban fuelwood cutters which the Forest Service could not control without community support	+	+	*	•	*	•	+	•		

- Key: + = exists/present \* = Important • = very important
- I. Representative participation in planning and implementation of activities
  - II. Knowledge of NRM activities / management options
  - III. Organizational capacity of user groups; access by resource managers to training and appropriate human resources development activities
  - IV. Decentralized authority / legal recognition of authority of community institutions / user groups
  - V. Security of resource tenure / local control over resource use and management
  - VI. Effective partnerships with service providers and/or technical services providing information
  - VII. Access to capital or decentralized rural credit institutions
  - VIII. Access to markets
  - IX. Locally adapted, effective mechanisms to manage potential resource conflicts

Activity - summary description, location	Subsector	Agro-ecological Zone/ Biophysical Features	Principal Local Stakeholders	NRM Practices	Observed Outcomes - Impacts			Constraints/ Problems Encountered	Enabling Environmental - Local Communities and Rural Producers have or perceive the following conditions (see key below):									
					Environmental	Economic	Democracy/ Governance		I	II	III	IV	V	VI	VII	VIII	IX	
Burkina Faso - Agro-forestry Project	Reinforced Agriculture	500-700 mm shrub and savanna woodland; Yatenga plateau; millet zone; ferruginous soils with ironstone outcrops	Smallholder farmers	Micro-catchments, water-spreading using small dike, stone lines and berms constructed along contour lines  Rapid growth in interest in the technique - leading to a doubling of treated areas each year	Reduction of sheet erosion; control of gully erosion  Significant increase in rainfall infiltration  Increased retention of topsoil and the soil particles; increased moisture holding capacity  Increased regeneration and growth of shrub cover and farm trees in treated fields  Rehabilitation of degraded land and restoration of cropland productivity	Improved success of crop seedling; reduced need to replant  Improved growth of crops during dry spells between summer rains; increased crop yields  Reduced vulnerability to drought  Decreased dependency on food aid	Participatory approach to research/action and use of appropriate technology for making contours (water-tube level) empowered farmers to address priority concerns (rehabilitation of degraded land, sustainable crop production and increased food security)	Prior dependence on technical services and sophisticated survey equipment to demarcate contour lines  Spread of local initiatives spawned by this activity have been undermined by reliance of GT/DI, programs on grant funds	•	•	*				+			

Activity - summary description, location	Subsector	Agro-ecological Zone/ Biophysical Features	Principal Local Stakeholders	NRM Practices	Observed Outcomes - Impacts			Constraints/ Problems Encountered	Enabling Environmental - Local Communities and Rural Producers have or perceive the following conditions (see key below):										
					Environmental	Economic	Democracy/ Governance		I	II	III	IV	V	VI	VII	VIII	IX		
Mali- Operation Haute Vallée (Integrated rural development Niger River valley)	Agriculture	750-1000 mm. Guinea and savanna woodland; cotton zone (clay loam)	Sedentary farmers in OIV zone	Soil / water conserving practices (contour dikes, "zais" or soil pits); soil fertility enrichment practices (compost, crop residue management, leguminous forage crops, fertilizer); agroforestry (karité or shea nut trees, pigeon pea, windbreaks); continual cropping with rotations	Runoff reduced Natural vegetation preserved Soil conserved Soil chemistry improved	Crop yields increased Crop diversity increased Reduced vulnerability to climate conditions Reduced dependence on fallow	Community associations negotiated the authority to manage local woodlands		*	*	*	*	*	*	*	*	*	*	?
Benin- Natural Resources Management Project, Toui-Kilibo	Natural Forest Management	1200 mm savanna woodland and clear forest	Farmers, hunters, herders, gatherers, woodcutters	Community-based management of 49,000 ha of national forest for lumber, firewood, charcoal, pasturage, game, NTFP, agriculture	Reversed trend of deforestation (slash and burn). All forest cuts followed by enrichment planted of African mahogany and other valuable timber species	Following signature of management plan, more than 135 registered coops and small enterprises engaged in forest-related activities	Forestry code changed as precondition to financing of project to allow local communities to actively participate in NFM according to terms and conditions of a management plan	Work at Toui-Kilibo used as model for similar interventions in other national forests in Benin and in Ivory Coast	•	*	•	•	•	•	+			*	+

Activity - summary description, location	Subsector	Agro-ecological Zone/ Biophysical Features	Principal Local Stakeholders	NRM Practices	Observed Outcomes - Impacts			Constraints/ Problems Encountered	Enabling Environmental - Local Communities and Rural Producers have or perceive the following conditions (see key below):								
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Niger-Africare Natural Resource Management Project. Gouré	Agriculture/ Rural Development	100-400 mm, transitional zone between livestock herding and rainfed agriculture	Farmers, herders	Community-based land use planning using diagnostic PRAs; rock bands, dune stabilization, livestock/grazing corridors; manure protection of farm trees in fields, stall feeding of livestock; expanded use of manure; water resources development, market gardens	Reduction in rate of sand dune encroachment Increased crop yields by 70% in treated fields Reduction in gazing pressure	Village committees mobilized local resources as a source of co-financing Increased collaboration between local producers and private sector service providers Specific concerns of women addressed; incomes increased from sale of fattened livestock	Reduced risk of conflict between farmers and herders Organization and capacity building of Village Management Committees which were empowered to negotiate contracts; shift of decision-making authority from technical services to village committees	District level technical services reluctant to shift roles, devolve authority and adopt participatory approach Tendency of donors to measure success by amount of donor funds spent instead of funds mobilized locally	●	*	●	*	+	*	*	+	*
Ethiopia, North Wollo, SOS Sahel	Village wood/grass lots	Highland degraded forest	Farmers, herders	Participatory Land-use planning and implementation (PLUPI) Demarcation of exclosures, protection, seedling production, tree plantation, cut and carry of grasses	Regeneration of natural vegetation on degraded slopes; reduced run-off; forage production; eventual production of firewood and poles	Sale of grass for forage and thatch; eventual sale of poles and firewood	Recognition by local authorities of usufruct rights. Laws have not changed, but regional and national authorities accept decisions of local councils. Conflict resolution by local committees	National law not yet passed to grant exclusive exploitation rights over NR to local communities	●	*	●	●	●	●		+	●

Activity - summary description, location	Subsector	Agro-ecological Zone/ Biophysical Features	Principal Local Stakeholders	NRM Practices	Observed Outcomes - Impacts			Constraints/ Problems Encountered	Enabling Environmental - Local Communities and Rural Producers have or perceive the following conditions (see key below):										
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The Gambian Exp.: Community Forest Ownership: Key to sustainable forest resource management	Natural Forest Management	Shrub/tree savanna	Farmers, woodcutters, herders	Community-based forest management; fire control; enrichment planning; controlled harvest of trees, controlled grazing	Resource based gradually restores in community-managed forests. Less fires, increase vegetation	More than 6,000 ha of forests managed mainly for firewood by 45 recognized communities. Revenue divided in three parts: 45% local community development; 40% local forest fund; 15% national forestry fund	Policy change approved by government in 1995 recognizing rights of local communities to manage forests. Local chiefs play important role in recognizing rights and settling disputes. Change of laws under way	Recognition of herders rights to pasture in management plans	•	*	•	•	•	*					•

Activity - summary description, location	Subsector	Agro-ecological Zone/ Biophysical Features	Principal Local Stakeholders	NRM Practices	Observed Outcomes - Impacts			Constraints/ Problems Encountered	Enabling Environmental - Local Communities and Rural Producers have or perceive the following conditions (see key below):									
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Niger-Farmer Managed Natural Regeneration (SIM-Maradi)	Agroforestry Agriculture-Farm Forestry	400-600 mm shrub savanna, millet zone	Farmers woodcutters	Switching from clearing and leaving fields "clean," to leaving fields "dirty"  Protection regeneration and management of woody plants in farm fields  Selective harvesting of multiple stems from regenerating shrubs	Increased numbers of woody plant stems in cultivated fields  Reduction in wind and water erosion  Decreased pressure on woodland and pasture resources	Reduced cost compared to planted seedlings) of resolving vegetative cover in farm fields  Increased production of fuelwood, poles and fodder from farm fields  Reduced expenditures for wood products  Diversification of farmers incomes  Increased crop yields (from windbreak effect, added soil organic matter and N fixation of leguminous species)	New latitude given by Forest Service to farmers to trim, cut, prune, harvest and otherwise manage woody plants in their fields  Improved collaboration between Forest Service and NGO (SIM) in support of farmer-oriented development activities	Initial opposition by Forest Service to back away from strict enforcement of Forestry Code and lining of farmers who prune trees	*	●	*	●	*	●			*	

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Uganda, Dudongo Forest Reserve	Biodiversity conservation/ Ecotourism	Savanna grassland/ woodland; large population of chimpanzees	Farmers, woodcutters	Participatory planning, protection, environmental education in local public schools	Reduction in illegal cutting, conservation of wildlife	\$15,000/yr generated from ecotourism 40% of revenues for community. Handicrafts, employment as scouts, beekeeping  Increased awareness by community regarding NRM and economic opportunities of ecotourism	Notion of community involvement in NRM activities initiated by project	Community involvement increasing but forest Dept remains skeptical. Laws not changes	*	*	*	*	*	*	?	?	●

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Senegal, Kaolack Agricultural Enterprise Development Project	Agriculture, Small Enterprise Development Rural Development	400-600 mm. Savanna woodlands, peanut basin, sandy soils over laterite	Farmers, with particular attention to women's groups	Demonstration fields with windbreaks, composting, field trees, increased access to credit for irrigated gardens, stall feeding and livestock fattening, cereal bank, other NRM and agricultural-based rural enterprises	Reduction of wind and soil erosion in treated fields	Establishment of 56 agricultural-based enterprises (ABEs)  Increased crop yields, intensification and diversification of crop production  Significantly increased incomes for women's groups from gardens, feedlots, nurseries, woodlots, grain mills, cereal banks and other ABEs	Literacy training and associated capacity building activities for women's group has enabled them to become more effective participants	Insecurity of tenure for women farmers	•	*	•						*	•	

Activity - summary description, location	Subsector	Agro-ecological Zone/ Biophysical Features	Principal Local Stakeholders	NRM Practices	Observed Outcomes - Impacts			Constraints/ Problems Encountered	Enabling Environmental - Local Communities and Rural Producers have or perceive the following conditions (see key below):								
					Environmental	Economic	Democracy/ Governance		I	II	III	IV	V	VI	VII	VIII	IX
Botswana, Natural Resource Management Project	Wildlife, Non-timber Forest Products (e.g., Pana worm; Scierocarya fruit). Natural Forest Management	Semi-arid, open savanna	Rural communities nomadic hunter/gatherers	Management of wildlife for safari hunting, photo-tourism Management for veld fruit production and other non-timber forest products Natural forest management	Stabilization of wildlife populations Wildlife habitat maintained Veld plants conserved	Increased revenue to local stakeholders Increase sources of local revenue	Relationships changed within communities Relationships changed between communities Relationships changed between communities, government and private sector	Lack of entrepreneurial tradition and opportunities Strong traditional hierarchies within communities	●	*	●	*	*	+	+	●	*

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